



Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

December 19, 2003

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: General Motors Corporation / T093-5652-00007

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and

- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
401 M Street  
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



*Joseph E. Kernan*  
Governor

*Lori F. Kaplan*  
Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

## **PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY**

**General Motors Corporation - GMPTG - Bedford  
105 GM Drive  
Bedford, Indiana 47421**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T093-5652-00007	
Issued by: Original signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: December 19, 2003  Expiration Date: December 19, 2008

## TABLE OF CONTENTS

<b>SECTION A</b>	<b>SOURCE SUMMARY</b> . . . . .	<b>5</b>
A.1	General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]	
A.3	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]	
A.4	Part 70 Permit Applicability [326 IAC 2-7-2]	
<b>SECTION B</b>	<b>GENERAL CONDITIONS</b> . . . . .	<b>9</b>
B.1	Definitions [326 IAC 2-7-1]	
B.2	Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]	
B.3	Enforceability [326 IAC 2-7-7]	
B.4	Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]	
B.5	Severability [326 IAC 2-7-5(5)]	
B.6	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.7	Duty to Provide Information [326 IAC 2-7-5(6)(E)]	
B.8	Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]	
B.9	Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]	
B.10	Annual Compliance Certification [326 IAC 2-7-6(5)]	
B.11	Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]	
B.12	Emergency Provisions [326 IAC 2-7-16]	
B.13	Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]	
B.14	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7- 5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]	
B.17	Permit Renewal [326 IAC 2-7-4]	
B.18	Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]	
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]	
B.20	Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]	
B.21	Source Modification Requirement [326 IAC 2-7-10.5]	
B.22	Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]	
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]	
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS</b> . . . . .	<b>20</b>
	<b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-7-6(6)]	
C.7	Stack Height [326 IAC 1-7]	
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	

## **TABLE OF CONTENTS (Continued)**

### **Testing Requirements [326 IAC 2-7-6(1)]**

- C.9 Performance Testing [326 IAC 3-6]

### **Compliance Requirements [326 IAC 2-1.1-11]**

- C.10 Compliance Requirements [326 IAC 2-1.1-11]

### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

- C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]  
C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]  
C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)]  
[326 IAC 2-7-6(1)]

### **Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]  
C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]  
C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326  
IAC 2-7-5] [326 IAC 2-7-6]  
C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326  
IAC 2-7-6]

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326  
IAC 2-6]  
C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]  
C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

### **Stratospheric Ozone Protection**

- C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

## **SECTION D.1 FACILITY OPERATION CONDITIONS - Chip Processing . . . . . 28**

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.1.1 Particulate [326 IAC 6-3-2]  
D.1.2 PSD Minor Limit [326 IAC 2-2]  
D.1.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]  
D.1.4 Secondary Aluminum Smelting NESHAP Requirements [40 CFR Part 63, Subpart RRR]  
D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

### **Compliance Determination Requirements**

- D.1.6 Control Device Operation  
D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]  
D.1.8 Secondary Aluminum Smelting NESHAP Monitoring Requirements [40 CFR Part 63,  
Subpart RRR]

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.1.9 Visible Emissions Notations  
D.1.10 Parametric Monitoring  
D.1.11 Broken or Failed Bag Detection  
D.1.12 Baghouse Inspections

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

## **TABLE OF CONTENTS (Continued)**

- D.1.13 Record Keeping Requirements [40 CFR 63, Subpart RRR]
- D.1.14 Reporting Requirements [40 CFR 63, Subpart RRR]

### **SECTION D.2 FACILITY OPERATION CONDITIONS - Aluminum Crushing . . . . . 36**

#### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.2.1 Particulate [326 IAC 6-3-2]
- D.2.2 PSD Minor Limit [326 IAC 2-2]
- D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

#### **Compliance Determination Requirements**

- D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.2.5 Particulate

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.2.6 Visible Emissions Notations
- D.2.7 Parametric Monitoring
- D.2.8 Dust Collector Inspections
- D.2.9 Broken or Failed Cartridge Filter Detection

#### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.2.10 Record Keeping Requirements

### **SECTION D.3 FACILITY OPERATION CONDITIONS - Die Cast Melting and Piston Melting . . . . . 39**

#### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.3.1 Particulate [326 IAC 6-3-2]
- D.3.2 PSD Minor Limit [326 IAC 2-2]
- D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
- D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

#### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.3.5 Record Keeping Requirements
- D.3.6 Reporting Requirements

### **SECTION D.4 FACILITY OPERATION CONDITIONS - Boiler . . . . . 44**

#### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.4.1 Particulate [326 IAC 6-2-3]

#### **Compliance Determination Requirements**

- D.4.2 Natural Gas

### **SECTION D.5 FACILITY OPERATION CONDITIONS - Insignificant Activities . . . . . 45**

#### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]
- D.5.3 Particulate [326 IAC 6-3-2]

**TABLE OF CONTENTS (Continued)**

Certification . . . . .	48
Emergency Occurrence Report . . . . .	49
Quarterly Report . . . . .	51 and 51
Quarterly Deviation and Compliance Monitoring Report . . . . .	53

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

---

The Permittee owns and operates a stationary aluminum die casting facility and aluminum foundry.

Responsible Official:	Plant Manager
Source Address:	105 GM Drive, Bedford, Indiana 47421
Mailing Address:	105 GM Drive, Bedford, Indiana 47421
General Source Phone Number:	(812) 279-7404
SIC Code:	3363, 3365
County Location:	Lawrence
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program
	Minor Source, under PSD Rules
	Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

This stationary source consists of the following emission units and pollution control devices:

#### Chip Processing

- (a) One (1) natural gas-fired aluminum chip dryer constructed in 1974, referred to as CHIP-2, with a maximum capacity of 7.60 tons of aluminum per hour and a maximum heat input capacity of 6.83 million Btu per hour, with emissions controlled by a baghouse and an afterburner AB-1, and exhausting to stack 10.

#### Aluminum Crushing

- (b) One (1) scrap metal crusher device, referred to as CRUSH, constructed in 1974 with a maximum crushing capacity of 37.5 tons of aluminum scrap per hour, with emissions controlled by a baghouse, and exhausting to stacks CRUSH-1.

#### Die Cast Melting

- (c) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 2-1 and 2-2.
- (d) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-3 and as DC MELT A - #3, constructed in 1974, with a maximum capacity of 3.4 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 67 and 68.



- (e) One (1) natural gas-fired reverberatory furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55, 56, and RF-11-H5.
- (f) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-12 and as DC MELT A - #12, constructed in 1996, with a maximum capacity of 10.0 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 40.0 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 57, 58, and 17.
- (g) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-16 and as DC MELT A - #16, constructed in 1975, with a maximum capacity of 4.87 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 29.2 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 52, 53, and 16.
- (h) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.
- (i) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum capacity of 2.08 tons of aluminum per hour, and one (1) pound of inorganic flux per ton of metal, with emissions uncontrolled, and exhausting to stack DH

#### **Piston Melting**

- (j) One (1) natural gas-fired dry hearth furnace, identified as number 14, constructed in 2003, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum capacity of 2.08 tons of aluminum per hour, and one (1) pound of inorganic flux per ton of metal, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (k) One (1) natural gas-fired reverberatory furnace, identified as number 18A, constructed in 2003, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum capacity of 2.0 tons of aluminum per hour, nine (9) pounds of inorganic flux per ton of metal, and two (2) pounds of organic flux per ton of metal, with emissions uncontrolled, and exhausting to stacks 261 and 264.
- (l) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-5 and as PIST MELT - #5, constructed in 1977, with a maximum capacity of 4.17 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 283 and 284.
- (m) One (1) natural gas-fired reverberatory melting furnace complex, referred to as complex 6 and RF-6, consisting of two natural gas-fired reverberatory furnaces, constructed in 1999, with a maximum capacity of 5 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and with a combined maximum heat input capacity of 33 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 6-1, 6-3, and charge well stacks 6-2 and 6-4.

- (n) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-7 and as PIST MELT - #7, constructed in 1976, with a maximum capacity of 6.6 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 39.6 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 275 and 276.
- (o) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-19 and as PIST MELT - #19, constructed in 1978, with a maximum capacity of 4.67 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 28 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 287 and 288.

#### **Natural Gas-Fired Boiler**

- (p) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

#### **A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]**

---

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2, 326 IAC 8-3-5].
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].
- (c) Grinding and machining operations [326 IAC 6-3-2].
- (d) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year [326 IAC 6-3-2].
  - (1) Chip and crushed material storage piles;
  - (2) Sniff units;
  - (3) EDM carbon etchers, tool sharpening, and abrasive cleaning;
  - (4) Small sand blasters;
  - (5) Refractory powder mixing station;
  - (6) Clipper brick saw;
  - (7) Feed hopper and conveyor for induction furnaces;
  - (8) Maintenance paint spray and mold ladle coating booths;

- (9) Ladle weigh station;
- (10) Die cast machines and associated small holding furnaces;
- (11) Permanent mold machines and associated small holding furnaces; and
- (12) Barrel furnace.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

---

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

- (a) As provided in 326 IAC 2-7-5(6), the Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
- (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.

- (b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]**

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]**

---

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:

- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
- (2) The compliance status;
- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

---

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.12 Emergency Provisions [326 IAC 2-7-16]**

---

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

---

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false,



or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

---

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

---

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that

exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

---

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.17 Permit Renewal [326 IAC 2-7-4]**

---

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

**B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

---

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12 (b)(2)]

---

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

---

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

---

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]**

---

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
---------------

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [[40 CFR 52 Subpart P] [326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

---

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.



- (f) Demolition and Renovation  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

### Testing Requirements [326 IAC 2-7-6(1)]

#### C.9 Performance Testing [326 IAC 3-6]

---

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### Compliance Requirements [326 IAC 2-1.1-11]

#### C.10 Compliance Requirements [326 IAC 2-1.1-11]

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

## **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

### **C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

---

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within thirty (30) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within thirty (30) days, the Permittee may extend the compliance schedule related to the equipment for an additional thirty (30) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial thirty (30) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

### **C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

---

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### **C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

---

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (  $\pm 2\%$  ) of full scale reading.
- (b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

## **Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

### **C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

---

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements of 40 CFR 68.

---

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.

The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from, or a violation of, this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall be considered deviation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]**

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

**C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

- 
- (a) Records of all required monitoring data, reports and support information required by this Permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
  - (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]**

---

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

**Stratospheric Ozone Protection**

**C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Chip Processing

- (a) One (1) natural gas-fired aluminum chip dryer constructed in 1974, referred to as CHIP-2, with a maximum capacity of 7.60 tons of aluminum per hour and a maximum heat input capacity of 6.83 million Btu per hour, with emissions controlled by a baghouse and an afterburner AB-1, and exhausting to stack 10.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and SSM 093-13639-00007 issued June 16, 2002, the particulate from the aluminum chip dryer (CHIP-2) shall not exceed 15.96 pounds per hour when operating at a process weight rate of 7.60 tons of aluminum per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

#### D.1.2 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM093-13639-00007, issued June 16, 2002, the Permittee is subject to the following limitations:

- (a) The PM emissions from the chip dryer (CHIP-2) shall not exceed 2.28 pounds per ton of metal.
- (b) The PM10 emissions from the chip dryer (CHIP-2) shall not exceed 2.28 pounds per ton of aluminum chips.
- (c) The VOC emissions from the chip dryer (CHIP-2) shall not exceed 2.0 pounds per ton of aluminum chips.

These limits are necessary in order that the source maintain minor PSD status, therefore, the requirements of 326 IAC 2-2 (PSD) will not apply to units constructed after 1977.

#### D.1.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the aluminum chip dryer (CHIP-2) except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements became applicable to the aluminum chip dryer (CHIP-2) on March 24, 2003. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to this facility.



---

**D.1.4 Secondary Aluminum Smelting NESHAP Requirements [40 CFR Part 63, Subpart RRR]**

---

- (a) Pursuant to 40 CFR 63.1505(c)(2), on or after the date the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator of the thermal chip dryer (CHIP-2) must not discharge or cause to be discharged to the atmosphere emissions in excess of 2.50 micrograms total polychlorinated dibenzofurans (D/F) international Toxicity Equivalent (TEQ) per megagram ( $3.5 \times 10^{-5}$  gr per ton) of dried chips.
- (b) Pursuant to 40 CFR 63.1506(f), the owner or operator of a thermal chip dryer (CHIP-2) with emissions controlled by an afterburner must:
  - (1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.
  - (2) Operate the afterburner in accordance with the OM&M plan.
  - (3) Operate each thermal chip dryer using only unpainted aluminum chips as the feedstock.

---

**D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

---

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the chip dryer (CHIP-2), the baghouse and the afterburner.

**Compliance Determination Requirements**

---

**D.1.6 Control Device Operation**

---

- (a) Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.1.2 and D.1.4, the afterburner shall be in operation at all times when the thermal chip dryer (CHIP-2) is in operation.
- (b) Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.1.1 and D.1.2, the baghouse shall be in operation at all times when the thermal chip dryer (CHIP-2) is in operation.

---

**D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

- (a) Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall perform PM, PM10, and VOC testing using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.1.1 and D.1.2. PM10 includes filterable and condensable PM10. These tests shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Pursuant to 40 CFR 63, Subpart RRR, the source shall conduct a performance test to demonstrate compliance with the requirements of 40 CFR 63, Subpart RRR as listed in Condition D.1.4(a). Testing shall be conducted in accordance with Section C - Performance Testing, and in accordance with the following requirements.
  - (1) Prior to conducting the performance test required by 40 CFR 63, Subpart RRR, the Permittee shall prepare and submit a site-specific test plan in compliance with 40 CFR 63.7(c). Following approval of the site-specific test plan, the Permittee shall demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected unit and report the results in the notification of compliance report. The Permittee shall conduct performance tests

in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR. The Permittee shall use Method 23 in Appendix A to 40 CFR 60 or an alternative method approved by the Administrator to measure the concentration of D/F.

The Permittee shall notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test shall be provided at least 30 days before the observations are scheduled to take place [40 CFR 63.1511(a)].

- (2) The Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit for D/F. The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met [40 CFR 63.1511(g)].

D.1.8 Secondary Aluminum Smelting NESHAP Monitoring Requirements [40 CFR Part 63, Subpart RRR]

---

- (a) The Permittee shall prepare a written Operation, Maintenance, and Monitoring (OM&M) Plan and shall submit the plan to the applicable permitting authority for review and approval. Any subsequent changes to the plan shall be submitted to the applicable permitting authority for review and approval. Pending approval of the initial or amended plan, the Permittee shall comply with the conditions of the submitted plan. The plan shall include the following information [40 CFR 63.1510(b)]:
  - (1) The process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each affected unit and control device.
  - (2) A monitoring schedule for each affected unit.
  - (3) Procedures for the proper operation and maintenance of each affected unit and control device used to meet the applicable emission limit in 40 CFR 63.1505.
  - (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
    - (A) Calibration and certification of accuracy of each monitoring device, at least once every six (6) months, according to the manufacturer's instructions; and
    - (B) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A.
  - (5) Procedures for monitoring process and control parameters, including procedures for annual inspections of afterburners, and if applicable, the procedures to be used for determining feed (or throughput) weight if a measurement device is not used.

- (6) Corrective actions to be taken when process operating parameters or add-on control device parameters deviate from the value or range established in (A) above, including:
  - (A) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
  - (B) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date corrective action was completed.
- (7) A maintenance schedule for each affected unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

The completion of the initial performance tests for the secondary aluminum processing units shall be considered to be the date of approval of the Operation, Maintenance and Monitoring (OM&M) Plan by IDEM, OAQ [40 CFR 63.1506(a)(2)].

- (b) The Permittee must monitor the afterburner as follows:
  - (1) The Permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A.
  - (2) The temperature monitoring device must:
    - (A) Be installed at the exit of each afterburner's combustion zone.
    - (B) Record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
    - (C) Have a recorder response range including zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m).
    - (D) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
  - (3) Conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
    - (A) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
    - (B) Inspection for proper adjustment of combustion air;
    - (C) Inspection of internal structures (e.g., baffles) to ensure structural integrity;
    - (D) Inspection of dampers, fans, and blowers for proper operation;

- (E) Inspection for proper sealing;
  - (F) Inspection of motors for proper operation;
  - (G) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;
  - (H) Inspection of afterburner shell for corrosion and/or hot spots;
  - (I) Documentation verifying that, for the burn cycle following the inspection, the afterburner is operating properly and all necessary adjustments have been made;
  - (J) Verification that the equipment is maintained in good operating condition.
  - (K) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.
- (c) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the emission limit. The Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record and report if an action taken during startup, shutdown, or malfunction is not consistent with the procedures in the startup, shutdown, and malfunction plan. The plan shall include [40 CFR 63.1516(a)].
- (1) The procedures to determine and record the cause of a malfunction and the time the malfunction began and ended; and
  - (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including the actions taken to correct the malfunction or minimize emissions.
- (d) Pursuant to 40 CFR 63.1510(e), the Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of dry chips processed through the afterburner for each operating cycle or time period used in the performance test consistent with US EPA's April 15, 2003 approval of alternative monitoring for the thermal chip dryer.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

##### **D.1.9 Visible Emissions Notations**

- 
- (a) Visible emission notations of the chip dryer (CHIP-2) stack exhaust shall be performed once per day during normal daylight operations when the chip dryer operates for more than one daylight hour. When required in accordance with Section D.1.10(b), visible emission notations of the chip dryer (CHIP-2) stack exhaust shall be performed once per shift during normal daylight operations when the chip dryer operates for more than one daylight hour. A trained employee shall record whether emissions are normal or abnormal.
  - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.10 Parametric Monitoring

- (a) The Permittee shall operate a continuous monitor of the pressure drop across the thermal chip dryer baghouse at all times when the thermal chip dryer is in operation, unless monitor downtime occurs, in which case the actions described in (b) below shall be initiated. The Permittee shall record the 15-minute block average of static pressure drop across the baghouse controlling the thermal chip dryer at least four equally-spaced times during each hour of operation. When for any one 15-minute block average reading, the pressure drop across the baghouse is outside the normal range of 0.5 to 7.0 inches of water, the Permittee shall take reasonable response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For any period during which continuous monitor downtime exceeds four consecutive hours, the Permittee shall record the total static pressure drop across the baghouse controlling the thermal chip dryer at least once per shift when the thermal chip dryer is in operation and initiate visible emissions readings in accordance with Section D.1.9. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 to 7.0 inches of water, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. After the continuous monitor returns to normal operation, the Permittee shall revert back to the requirements of Section D.1.10(a) above.
- (c) The instruments used for determining the pressure shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated during April and October of each year.

#### D.1.11 Broken or Failed Bag Detection

In the event that bag failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.

#### D.1.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of the clean end of the baghouse controlling the thermal chip dryer. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.1.13 Record Keeping Requirements [40 CFR 63, Subpart RRR]

- (a) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the chip dryer (CHIP-2) stack exhaust.
- (b) In order to document compliance with condition D.1.10, the Permittee shall maintain records of the total static pressure drop once per shift during normal operation when venting to the atmosphere.
- (c) In order to document compliance with Condition D.1.12, the Permittee shall maintain records of the results of the inspections required under Condition D.1.12.
- (d) Pursuant to 40 CFR 63, Subpart RRR, in addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain:
  - (1) The number of total operating hours for the affected source or emission unit during each 6 month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.
  - (2) Records of any approved alternative monitoring or test procedure.
  - (3) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
    - (A) Startup, shutdown, and malfunction plan; and
    - (B) Operation, Maintenance, and Monitoring (OM&M) Plan.

The record keeping requirements pursuant to the NESHAP 40 CFR 63, Subpart RRR, become applicable to the aluminum chip dryer on March 24, 2003.

- (e) The Permittee shall maintain files of all information, including reports and notifications, required by 40 CFR 63.10 and 40 CFR 63.1517. The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (3) years of records may be retained off-site. The Permittee may retain records on microfilm, computer disks, magnetic tape or microfiche.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.14 Reporting Requirements [40 CFR 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status reports no more than 60 days after March 24, 2003 for the thermal chip dryer (CHIP-

- 2). The notification must be signed by the responsible official who must certify its accuracy. The report shall include:
  - (1) All information required in 40 CFR 63.9(h). The Permittee shall provide a complete performance test report for each affected unit, including data, associated measurements, and calculations.
  - (2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system.
  - (3) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., alkaline agent injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (4) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for the capture/collection system required in 40 CFR 63.1506(c).
  - (5) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems required in 40 CFR 63.1510(f).
  - (6) Approved Operation, Maintenance, and Monitoring (OM&M) Plan.
  - (7) Startup, shutdown, and malfunction plan.
- (b) On and after March 24, 2003, the Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring Plan. When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur [40 CFR 63.1516(b)]:
  - (1) An excursion of a compliant process or operating parameter value or range.
  - (2) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan.
  - (3) Each report must include a certification that "only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period".
- (c) The Permittee shall submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Aluminum Crushing

- (b) One (1) scrap metal crusher device, referred to as CRUSH, constructed in 1974 with a maximum crushing capacity of 37.5 tons of aluminum scrap per hour, with emissions controlled by a baghouse, and exhausting to stacks CRUSH-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and SSM 093-13639-00007, issued June 16, 2002, the particulate from the scrap metal crusher (CRUSH) shall not exceed 41.94 pounds per hour when operating at a process weight rate of 37.5 tons of aluminum per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55 P^{0.11} - 40 \quad \text{where} \quad E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.2.2 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM093-13639-00007, issued June 16, 2002, the Permittee is subject to the following limitations:

- (a) The PM emissions from the scrap metal crusher (CRUSH) shall not exceed 0.235 pounds per hour.
- (b) The PM10 emissions from the scrap metal crusher (CRUSH) shall not exceed 0.235 pounds per hour.

These limits are necessary in order that the source maintain minor PSD status; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply to units constructed after 1977.

#### D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the dust collector.

### Compliance Determination Requirements

#### D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.2.1 and D.2.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.



#### **D.2.5 Particulate**

---

Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.2.1 and D.2.2, the dust collector shall be in operation at all times when the scrap metal crusher (CRUSH) is in operation.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### **D.2.6 Visible Emissions Notations**

---

- (a) Visible emission notations of the scrap metal crusher (CRUSH) stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### **D.2.7 Parametric Monitoring**

---

The Permittee shall record the total static pressure drop across the dust collector controlling the scrap metal crusher (CRUSH) at least once per shift when the scrap metal crusher (CRUSH) is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. When for any one reading, or in the case of a continuous recording device for any 15-minute average, the pressure drop across the baghouse is outside the normal range of 1.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated in April and October of each year.

#### **D.2.8 Dust Collector Inspections**

---

An inspection shall be performed each calendar quarter of the clean end of the dust collector controlling the scrap metal crusher (CRUSH) processes. Inspections required by this condition shall not be performed in consecutive months. All defective cartridge filters shall be replaced.

#### **D.2.9 Broken or Failed Cartridge Filter Detection**

---

In the event that cartridge filter failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment dust collectors if failure is indicated by a significant drop in the dust collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge filter failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.

#### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **D.2.10 Record Keeping Requirements**

---

- (a) In order to document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust once per shift.
- (b) In order to document compliance with condition D.2.7, the Permittee shall maintain records of total static pressure drop once per shift during normal operation when venting to the atmosphere.
- (c) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.3 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Die Cast Melting

- (c) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 2-1 and 2-2.
- (d) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-3 and as DC MELT A - #3, constructed in 1974, with a maximum capacity of 3.4 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 67 and 68.
- (e) One (1) natural gas-fired reverberatory furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55, 56, and RF-11-H5.
- (f) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-12 and as DC MELT A - #12, constructed in 1996, with a maximum capacity of 10.0 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 40.0 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 57, 58, and 17.
- (g) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-16 and as DC MELT A - #16, constructed in 1975, with a maximum capacity of 4.87 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 29.2 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 52, 53, and 16.
- (h) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Facility Description [326 IAC 2-7-5(15)]: (Continued)**

**Piston Melting**

- (i) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum capacity of 2.08 tons of aluminum per hour, and one (1) pound of inorganic flux per ton of metal, with emissions uncontrolled, and exhausting to stack DH-13-1.
- (j) One (1) natural gas-fired dry hearth furnace, identified as number 14, constructed in 2003, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum capacity of 2.08 tons of aluminum per hour, and one (1) pound of inorganic flux per ton of metal, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (k) One (1) natural gas-fired reverberatory furnace, identified as number 18A, constructed in 2003, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum capacity of 2.0 tons of aluminum per hour, nine (9) pounds of inorganic flux per ton of metal, and two (2) pounds of organic flux per ton of metal, with emissions uncontrolled, and exhausting to stacks 261 and 264.
- (l) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-5 and as PIST MELT - #5, constructed in 1977, with a maximum capacity of 4.17 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 283 and 284.
- (m) One (1) natural gas-fired reverberatory melting furnace complex, referred to as complex 6 and RF-6, consisting of two natural gas-fired reverberatory furnaces, constructed in 1999, with a maximum capacity of 5 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and with a combined maximum heat input capacity of 33 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 6-1, 6-3, and charge well stacks 6-2 and 6-4.
- (n) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-7 and as PIST MELT - #7, constructed in 1976, with a maximum capacity of 6.6 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 39.6 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 275 and 276.
- (o) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-19 and as PIST MELT - #19, constructed in 1978, with a maximum capacity of 4.67 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 28 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 287 and 288.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.3.1 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and SSM 093-13639-00007, issued June 16, 2002, the particulate emission rate from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
Reverberatory Furnace RF-2 (DC MELT B - #2)	6.25	14
Reverberatory Furnace RF-3 (DC MELT A - #3)	3.4	9.31
Reverberatory Furnace RF-11 (DC MELT A - #11)	5.1	12.21
Reverberatory Furnace RF-12 (DC MELT A - #12)	10.0	19.18
Reverberatory Furnace RF-16 (DC MELT A - #16)	4.87	11.84
Dry Hearth Furnace Number 10	12.5	22.27
Dry Hearth Furnace Number 13	2.08	6.70
Dry Hearth Furnace Number 14	2.08	6.70
Reverberatory Furnace Number 18A	2.0	6.52
Reverberatory Furnace RF-5 (PIST MELT - #5)	4.17	10.67
Reverberatory Furnace Complex 6 (RF-6)	5.0	12.05
Reverberatory Furnace RF-7 (PIST MELT - #7)	6.6	14.52
Reverberatory Furnace RF-19 (PIST MELT - #19)	4.67	11.51

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

#### D.3.2 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 093-13639-00007, issued June 16, 2002, the source shall comply with conditions (a), (b), (c), (d), and (j) in order to render the requirements of 326 IAC 2-2 (PSD) not applicable to the dry hearth furnaces #10, 13, and 14 and reverberatory furnace #18A, and in order for the source to maintain minor PSD status. Pursuant to SSM 093-13639-00007, issued June 16, 2002, revised by this Part 70 permit, the source shall comply with conditions (a), (d), (e), (f), (g), (h), and (i) in order to limit the potential to emit of any single HAP to less than 10 tons per year and any combination of HAPs to less than 25 tons per year, such that the source will be a minor source of HAPs.

- (a) The total amount of metal melted by all the furnaces combined shall not exceed 175,000 tons per twelve (12) consecutive month period.
- (b) The PM emissions from each of the furnaces shall not exceed 1.78 pounds per ton of metal melted averaged over the melt cycle.

- (c) The PM10 emissions from each of the furnaces shall not exceed 1.78 pounds per ton of metal melted averaged over the melt cycle.
- (d) The amount of organic flux used in all of the furnaces combined shall not exceed 34,909 pounds per twelve (12) consecutive month period, where 100 pounds of inorganic flux is equivalent to 1 pound of organic flux.
- (e) The HCl emissions from the use of organic flux shall not exceed 0.55 pounds per pound of organic flux used.
- (f) The HF emissions from the use of organic flux shall not exceed 0.06 pounds per pound of organic flux used.
- (g) The hexachloroethane emissions from the use of organic flux shall not exceed 0.004 pounds per pound of organic flux used.
- (h) The HCl emissions from the use of inorganic flux shall not exceed 0.005 pounds per pound of inorganic flux used.
- (i) The HF emissions from the use of inorganic flux shall not exceed 0.03 pounds per pound of inorganic flux used.
- (j) The Permittee shall not melt any post-consumer scrap materials in any of the furnaces at this source. Only General Motors returns and/or returns from non-General Motors sources where the composition of the purchased returns have at least the same quality as the General Motors returns shall be melted in any of the furnaces. The non-General Motors returns shall be specified contractually, and the quality of the returns shall be controlled contractually. Therefore, this source is not considered a secondary metal production facility and is therefore, not one of the 28 listed source categories.

These limits are necessary in order that the source maintain minor PSD status; therefore, the requirements of 326 IAC 2-2 (PSD) will not apply to units constructed after 1977. These conditions are also sufficient to limit emissions of HAPs to less than 10 tons per year for any single HAP and less than 25 tons per year for all HAPs combined.

#### D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

### **Compliance Determination Requirements**

#### D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Pursuant to SSM 093-13639-00007, issued June 16, 2002, within 60 days after achieving maximum capacity, but no later than 180 days after startup, the Permittee shall perform PM and PM10 testing on the furnace Number 10 using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.3.1 and D.3.2. PM10 includes filterable and condensible PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall perform PM and PM10 testing on the reverberatory furnaces RF-2 (DC MELT B - #2) and Complex 6 (RF-6) using methods as approved by the Commissioner, in order to

demonstrate compliance with Conditions D.3.1 and D.3.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

#### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **D.3.5 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.3.2, the Permittee shall keep records of the amount of metal melted in all of the furnaces combined, each month of operation.
- (b) To document compliance with Condition D.3.2, the Permittee shall keep records of the amount of organic flux used in all of the furnaces combined, each month of operation.
- (c) To document compliance with Condition D.3.2, the Permittee shall keep records of the amount of inorganic flux used in all of the furnaces combined, each month of operation.
- (d) To document compliance with Condition D.3.2(j), the Permittee shall keep records of the type of scrap used in the furnaces. The records shall be sufficient to demonstrate compliance with the requirements of D.3.2(j).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

##### **D.3.6 Reporting Requirements**

---

A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## **SECTION D.4 FACILITY OPERATION CONDITIONS**

### **Facility Description [326 IAC 2-7-5(15)]:**

#### **Natural Gas-Fired Boiler**

- (p) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

#### **D.4.1 Particulate [326 IAC 6-2-3]**

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the 10.05 MMBtu per hour heat input boiler shall be limited to 0.8 pound per million Btu of heat input.

### **Compliance Determination Requirements**

#### **D.4.2 Natural Gas**

In order to demonstrate compliance with D.4.1, the source shall burn only natural gas.



## SECTION D.5 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2, 326 IAC 8-3-5].
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].
- (c) Grinding and machining operations [326 IAC 6-3-2].
- (d) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year [326 IAC 6-3-2]:
  - (1) Chip and crushed material storage piles;
  - (2) Sniff units;
  - (3) EDM carbon etchers, tool sharpening, and abrasive cleaning;
  - (4) Small sand blasters;
  - (5) Refractory powder mixing station;
  - (6) Clipper brick saw;
  - (7) Feed hopper and conveyor for induction furnaces;
  - (8) Maintenance paint spray and mold ladle coating booths;
  - (9) Ladle weigh station;
  - (10) Die cast machines and associated small holding furnaces;
  - (11) Permanent mold machines and associated small holding furnaces; and
  - (12) Barrel furnace.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

- (a) Equip the cleaner with a cover;

- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

- (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### D.5.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the particulate emitting facilities listed in this section shall not exceed the allowable particulate emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Address: 105 GM Drive, Bedford, Indiana 47421  
Mailing Address: 105 GM Drive, Bedford, Indiana 47421  
Part 70 Permit No.: T093-5652-00007

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

? Annual Compliance Certification Letter

? Test Result (specify) \_\_\_\_\_

? Report (specify) \_\_\_\_\_

? Notification (specify) \_\_\_\_\_

? Affidavit (specify) \_\_\_\_\_

? Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE BRANCH**  
**100 North Senate Avenue**  
**P.O. Box 6015**  
**Indianapolis, Indiana 46206-6015**  
**Phone: 317-233-5674**  
**Fax: 317-233-5967**

**PART 70 OPERATING PERMIT**  
**EMERGENCY OCCURRENCE REPORT**

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Address: 105 GM Drive, Bedford, Indiana 47421  
Mailing Address: 105 GM Drive, Bedford, Indiana 47421  
Part 70 Permit No.: T093-5652-00007

**This form consists of 2 pages**

**Page 1 of 2**

- ? This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:

Date/Time Emergency was corrected:

Was the facility being properly operated at the time of the emergency?    Y    N  
Describe:

Type of Pollutants Emitted: TSP, PM-10, SO<sub>2</sub>, VOC, NO<sub>x</sub>, CO, Pb, other:

Estimated amount of pollutant(s) emitted during emergency:

Describe the steps taken to mitigate the problem:

Describe the corrective actions/response steps taken:

Describe the measures taken to minimize emissions:

If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**Compliance Data Section**

**Part 70 Quarterly Report**

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Address: 105 GM Drive, Bedford, Indiana 47421  
Mailing Address: 105 GM Drive, Bedford, Indiana 47421  
Part 70 Permit No.: T093-5652-00007  
Facility: All furnaces combined  
Parameter: Amount of metal melted  
Limit: 175,000 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY Compliance Data Section

### Part 70 Quarterly Report

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Address: 105 GM Drive, Bedford, Indiana 47421  
Mailing Address: 105 GM Drive, Bedford, Indiana 47421  
Part 70 Permit No.: T093-5652-00007  
Facility: All furnaces combined  
Parameter: Amount of flux used  
Limit: 34,909 pounds of organic flux per twelve (12) consecutive moth period, where 100 pounds of inorganic flux is equivalent to 1 pound of organic flux

YEAR: \_\_\_\_\_

Month	Column 1			Column 2			Column 1 + Column 2		
	This Month			Previous 11 Months			12 Month Total		
	Organic flux used (lb)	Inorganic flux used (lb)	Total equivalent organic flux used (lb)	Organic flux used (lb)	Inorganic flux used (lb)	Total Equivalent organic flux used (lb)	Organic flux used (lb)	Inorganic flux used (lb)	Total Equivalent organic flux used (lb)
Month 1									
Month 2									
Month 3									

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_

Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
Compliance Data Section**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Address: 105 GM Drive, Bedford, Indiana 47421  
Mailing Address: 105 GM Drive, Bedford, Indiana 47421  
Part 70 Permit No.: T093-5652-00007

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

? NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

? THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document (TSD) for a Part 70 Operating Permit

#### Source Background and Description

Source Name:	General Motors Corporation - GMPTG - Bedford
Source Location:	105 GM Drive, Bedford, Indiana 47421
County:	Lawrence
SIC Code:	3363, 3365
Operation Permit No.:	T093-5652-00007
Permit Reviewer:	ERG/MP

On June 11, 2003, the Office of Air Quality (OAQ) had a notice published in the Times-Mail, Bedford, Indiana, stating that General Motors Corporation - GMPTG - Bedford, had applied for a Part 70 Operating Permit to operate an aluminum die casting and foundry with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 14, 2003, General Motors Corporation - GMPTG - Bedford submitted comments on the proposed Part 70 Operating Permit. The summary of the comments is as follows. Bold text has been added while text with a line through it has been deleted. The Table of Contents was updated as needed.

#### Comments from General Motors Corporation - GMPTG - Bedford

##### SECTION A.1

##### **Comment 1:**

1. General Motors requests that the following description be changed as indicated to more accurately represent facility operations:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

---

The Permittee owns and operates a stationary aluminum die casting facility **and aluminum foundry**.

##### **Response to Comment 1:**

The following changes were made as a result of this comment.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

---

The Permittee owns and operates a stationary aluminum die casting facility **and aluminum foundry**.

## **SECTION A.2**

### **Comment 2:**

1. General Motors requests that any references to the induction furnaces be removed since these units have ceased operation.
  - ~~(c) Two (2) electric induction furnaces, referred to as INDUCT-21, and INDUCT-22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.~~
  - ~~(d) Three (3) electric induction furnaces, referred to as INDUCT-23, INDUCT-24, and INDUCT-25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.~~
  - ~~(e) Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.~~

### **Response to Comment 2:**

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A. The remaining emission units in Section A and D were renumbered accordingly.

- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]
- 

### **Die Cast Melting**

- ~~(c) Two (2) electric induction furnaces, referred to as INDUCT-21, and INDUCT-22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.~~
- ~~(d) Three (3) electric induction furnaces, referred to as INDUCT-23, INDUCT-24, and INDUCT-25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.~~
- ~~(e) Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.~~
- (fc) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2** 207.
- (gd) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-3 and as DC MELT A - #3, constructed in 1974, with a maximum capacity of 3.4 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 67 and 68.

- (he) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55; ~~and 56;~~ ~~and 15.~~
- (if) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-12 and as DC MELT A - #12, constructed in 1996, with a maximum capacity of 10.0 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 40.0 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 57, 58, and 17.
- (jg) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-16 and as DC MELT A - #16, constructed in 1975, with a maximum capacity of 4.87 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 29.2 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 52, 53, and 16.
- (kh) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.

**Comment 3:**

- 2. General Motors requests that the description for the natural gas-fired reverberatory holding furnace, referred to as RF-2, be changed to indicate the two stacks located off of the furnace, a flue stack (stack 2-1) and a hood stack (stack 2-2).
- (f) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2** ~~207.~~

**Response to Comment 3:**

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A.

- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

- (fc) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2** ~~207.~~

**Comment 4:**

- 3. General Motors requests that the description for the natural gas-fired reverberatory furnace, referred to as RF-11, be revised to remove an incorrectly referenced stack, 15. This furnace has a hood

stack (#55) and a flue stack (#56). Also, this furnace can act both as a holding furnace and as a melting furnace; therefore it is more appropriate to call it a reverberatory furnace.

- (he) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55; **and 56;** ~~and 15.~~

#### Response to Comment 4:

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

- (he) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55; **and 56;** ~~and 15.~~

#### Comment 5:

4. General Motors requests that the descriptions of furnace numbers 14 and 18A be revised to indicate that the furnaces have been constructed and are now operational in accordance with the affidavits of construction received by IDEM on January 29, 2003.
- (m) One (1) natural gas-fired dry hearth furnace, identified as number 14, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (n) One (1) natural gas-fired reverberatory furnace, identified as number 18A, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.

#### Response to Comment 5:

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

- (mj) One (1) natural gas-fired dry hearth furnace, identified as number 14, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (nk) One (1) natural gas-fired reverberatory furnace, identified as number 18A, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity



of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.

**Comment 6:**

5. General Motors requests that the description of furnace RF-13 be deleted, since this furnace has been removed from service.

~~(e) One (1) natural gas fired reverberatory melting furnace, referred to as RF 13 and as PIST MELT #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.~~

**Response to Comment 6:**

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A. The remaining emission units in Section A and D were renumbered accordingly.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

---

~~(e) One (1) natural gas fired reverberatory melting furnace, referred to as RF 13 and as PIST MELT #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.~~

**Comment 7:**

6. General Motors requests that the heading "Natural Gas-Fired Boiler" be added above the description of the POWER – tool room boiler, to keep it separate from the "Piston Melting" category.

**Response to Comment 7:**

The following changes were made as a result of this comment. The description boxes in Section D were also changed to match the descriptions in Section A. The remaining emission units in Section A and D were renumbered accordingly.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

---

**Natural Gas-Fired Boiler**

(tp) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

## SECTION D.4 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Natural Gas-Fired Boiler

- (up) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## SECTION C

### Comment 8:

1. General Motors requests that both conditions identified as C.13(a) be removed from the permit. In the first occurrence of condition C.13(a), concerning pressure drop gauges, the requirement is repeated word-for-word in condition C.13(b), and therefore is unnecessary. In the second occurrence of condition C.13(a), concerning pH meters, the facility does not use, and is not required to use, a pH meter to prove compliance with any of the conditions of this permit and therefore this requirement should be deleted.

### C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- ~~(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.~~
- (ba) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- ~~(a) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

### Response to Comment 8:

The following changes were made as a result of this comment.

### C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- ~~(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.~~
- (ba) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the

expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (  $\pm 2\%$ ) of full scale reading.

(ac) ~~The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

(db) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

## **SECTION D.1**

### **Comment 9:**

1. General Motors requests that wording within condition D.1.3 be changed to reflect the fact that the requirements of 40 CFR Part 63, Subpart RRR are currently in effect.

#### **D.1.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]**

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the aluminum chip dryer (CHIP-2) except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements **became become** applicable to the aluminum chip dryer (CHIP-2) on March 24, 2003. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to this facility.

### **Response to Comment 9:**

The following changes were made as a result of this comment.

#### **D.1.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]**

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the aluminum chip dryer (CHIP-2) except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements **became become** applicable to the aluminum chip dryer (CHIP-2) on March 24, 2003. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to this facility.

### **Comment 10:**

2. General Motors requests that the requirement to have a preventative maintenance plan for the rotary dryer of the thermal chip drying system be removed. Maintenance of the rotary dryer has no environmental significance; the objective of such maintenance is primarily to keep production running. It is the afterburner and baghouse controls that should be the focus of the preventative maintenance plan for the chip drying system.

#### **D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~the chip dryer (CHIP-2)~~, the baghouse and the afterburner.

### **Response to Comment 10:**

The requirement to maintain a Preventive Maintenance Plan (PMP) is applicable to any facility that is required by 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits) to obtain a permit. Any preventive maintenance that could effect emissions from the facilities in question

should be listed in the Preventive Maintenance Plan. Proper maintenance and operation of the chip dryer burners are needed to minimize emissions by ensuring complete and efficient combustion. Poorly maintained burners could lead to an increase in CO and VOC emissions. For this reason, the condition was not modified to state that the PMP only applies to the control devices and not the facilities.

**Comment 11:**

3. General Motors requests an editorial change in condition D.1.6(a), afterburner should be one word.

**D.1.6 Control Device Operation**

---

- (a) Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.1.2 and D.1.4, the ~~after~~ afterburner shall be in operation at all times when the thermal chip dryer (CHIP-2) is in operation.

**Response to Comment 11:**

The following changes were made as a result of this comment.

**D.1.6 Control Device Operation**

---

- (a) Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.1.2 and D.1.4, the ~~after~~ afterburner shall be in operation at all times when the thermal chip dryer (CHIP-2) is in operation.

**Comment 12:**

4. Condition D.1.7(b) should be revised to remove the requirement for repeat testing every 5 years. In accordance with 40 CFR 63.1511(e), as an area source this is not a requirement for this facility.

**D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

- (b) Pursuant to 40 CFR 63, Subpart RRR, the source shall conduct a performance test to demonstrate compliance with the requirements of 40 CFR 63, Subpart RRR as listed in Condition D.1.4(a). ~~These tests shall be repeated at least five (5) years from the date of this valid compliance demonstration.~~ Testing shall be conducted in accordance with Section C - Performance Testing, and in accordance with the following requirements.

**Response to Comment 12:**

The following changes were made as a result of this comment.

**D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

- (b) Pursuant to 40 CFR 63, Subpart RRR, the source shall conduct a performance test to demonstrate compliance with the requirements of 40 CFR 63, Subpart RRR as listed in Condition D.1.4(a). ~~These tests shall be repeated at least five (5) years from the date of this valid compliance demonstration.~~ Testing shall be conducted in accordance with Section C - Performance Testing, and in accordance with the following requirements.

**Comment 13:**

5. In accordance with minor permit modification (093-16988-00007), to the Significant Source Modification (093-13639-00007), any references made to labeling requirements for the thermal chip dryer should be removed. Since the thermal chip dryer is not a group 1 furnace, group 2 furnace, or

in-line fluxer and scrap dryer/delacquering kiln/decoating kiln, the labeling requirements of 40 CFR 63.1506(b) do not apply. As well, the requirement to have a site-specific secondary aluminum processing unit emission plan for the thermal chip dryer should be removed. As the dryer is not a secondary aluminum processing unit (SAPU), an emission plan is not required for this unit.

D.1.8 Secondary Aluminum Smelting NESHAP Monitoring Requirements [40 CFR Part 63 (Subpart RRR)]

---

- (b) ~~The Permittee shall provide and maintain easily visible labels at each affected unit that identifies the applicable emission limit and means of compliance [63.1506(b)]. The labels shall include:~~
- ~~(1) The type of affected emission unit (i.e., thermal chip dryer); and~~
  - ~~(2) The applicable operational standard and control method.~~
- (c) ~~The Permittee shall inspect the labels for each affected unit at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible [63.1510(c)].~~

D.1.13 Record Keeping Requirements [40 CFR 63, Subpart RRR] [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

---

- (d) Pursuant to 40 CFR 63, Subpart RRR, in addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain:
- ~~(2) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.~~
  - ~~(32) Records of any approved alternative monitoring or test procedure.~~
  - ~~(43) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:~~
    - ~~(C) Site specific secondary aluminum processing unit emission plan.~~

D.1.14 Reporting Requirements [40 CFR 63, Subpart RRR]

---

- (a) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status reports no more than 60 days after March 24, 2003 for the thermal chip dryer. The notification must be signed by the responsible official who must certify its accuracy. The report shall include:
- ~~(3) Unit labeling as described in 40 CFR 63.1506(b), including process type or each affected unit classification and operating requirements.~~
- (b) On and after March 24, 2003, the Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring Plan. When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur [40 CFR 63.1516(b)]:
- ~~(3) A deviation from the 3 day, 24-hour rolling average emission limit for a secondary aluminum processing unit.~~

### Response to Comment 13:

IDEM agrees with this comment, and as was done in MPM 093-16988-00007, the following changes were made as a result of this comment. Conditions have been renumbered accordingly.

#### D.1.8 Secondary Aluminum Smelting NESHAP Monitoring Requirements [40 CFR Part 63 (Subpart RRR)]

---

- ~~(b) The Permittee shall provide and maintain easily visible labels at each affected unit that identifies the applicable emission limit and means of compliance [63.1506(b)]. The labels shall include:~~
  - ~~(1) The type of affected emission unit (i.e., thermal chip dryer); and~~
  - ~~(2) The applicable operational standard and control method.~~
- ~~(c) The Permittee shall inspect the labels for each affected unit at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible [63.1510(c)].~~

#### D.1.13 Record Keeping Requirements [40 CFR 63, Subpart RRR] [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

---

- (d) Pursuant to 40 CFR 63, Subpart RRR, in addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain:
  - ~~(2) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.~~
  - (32) Records of any approved alternative monitoring or test procedure.
  - (43) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
    - (A) Startup, shutdown, and malfunction plan; **and**
    - (B) Operation, Maintenance, and Monitoring Plan; **and**
    - ~~(C) Site specific secondary aluminum processing unit emission plan.~~

#### D.1.14 Reporting Requirements [40 CFR 63, Subpart RRR]

---

- (a) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status reports no more than 60 days after March 24, 2003 for the thermal chip dryer. The notification must be signed by the responsible official who must certify its accuracy. The report shall include:
  - ~~(3) Unit labeling as described in 40 CFR 63.1506(b), including process type or each affected unit classification and operating requirements.~~
  - (43) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., alkaline agent injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the

performance test.

- (54) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for the capture/collection system required in 40 CFR 63.1506(c).
  - (65) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems required in 40 CFR 63.1510(f).
  - (76) Approved Operation, Maintenance, and Monitoring (OM&M) Plan.
  - (87) Startup, shutdown, and malfunction plan.
- (b) On and after March 24, 2003, the Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring Plan. When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur [40 CFR 63.1516(b)]:
- ~~(3) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.~~
  - (3) Each report must include a certification that "only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period".**

**Comment 14:**

6. Conditions D.1.9 and D.1.13(a) should be modified to eliminate the requirement to conduct visible emissions observations. Unlike other sources of particulate emissions, this emission unit is already being monitored extensively in a manner that will ensure that there is no exceedance of the opacity or process weight rate requirements. If this unit is operating properly, it will be compliant with the applicable limits. To ensure proper operation, Subpart RRR requires the facility to continuously monitor the afterburner temperature and the weighbelt flow rate. These two parameters ensure that there will not be a situation where an excessive amount of chips is being processed. The weighbelt processing rate established under Subpart RRR constitutes indicator monitoring, which IDEM can use to provide a reasonable assurance of compliance with the process weight rate and opacity regulations. In addition, we are required to take pressure drop readings every shift, conduct quarterly baghouse inspections and regular stack testing. Taken together, these requirements go well beyond what is needed to provide a reasonable assurance of compliance. Moreover, conducting visible emissions observations on a per shift basis becomes problematic for those shifts during which 2 hours or less of daylight occurs. For example, scheduling the readings for the night shift during which the early morning hours may occasion a few minutes to an hour of daylight is difficult given that the observation would need to occur during the time that transition from one shift to the next must also occur. Given that the unit's proper operation is already being documented with substantial monitoring data, it makes sense to delete this requirement.

~~D.1.9 Visible Emissions Notations~~

---

- ~~(a) Visible emission notations of the chip dryer (CHIP-2) stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

D.1.13 Record Keeping Requirements [40 CFR 63, Subpart RRR]

- ~~(a) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the chip dryer (CHIP-2) stack exhaust once per shift.~~

**Response to Comment 14:**

See response to comment 15 below.

**Comment 15:**

7. General Motors requests that the normal range of pressure drop readings be changed in condition D.1.10 from 1.0 to 8.0 inches of water to 0.3 to 7.3 inches of water. GM engineers have observed that it is not unusual, after a bag shakedown (cleaning), to get readings around 0.3 inches of water even though the baghouse is operating properly. General Motors also requests that if a continuous recorder is used to take pressure drop readings that instead of monitoring the instantaneous readings the recorder should monitor a 15-minute moving average of the pressure drop readings. This would help minimize the occurrences of nonsense alarms, when the pressure drop fluctuates for an instant above or below the normal range, which can happen due to the air flow variability of the operation under different chip processing rates. Also, if a continuous recorder is being used it should not be necessary for anyone to manually monitor the output each shift since the recorder is designed to conduct this monitoring internally and would signal an alarm if conditions were outside of indicator ranges. In the event of an alarm situation, as specified in condition D.1.10 below, the Compliance Response Plan would be initiated and corrective action taken in accordance with the plan. Lastly, General Motors requests that the calibration period for the pressure gauge be changed to specify the months in which calibration is to occur, instead of basing the calibration on a specific six (6) month period which would fluctuate, making the requirement harder to track.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse controlling the thermal chip dryer at least once per shift when the thermal chip dryer is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. ~~The output of the continuous recording device shall be monitored once per shift.~~ When for any one reading, **or in the case of a continuous recording device for any 15-minute average**, the pressure drop across the baghouse is outside the normal range of **0.5 to 7.0** ~~1.0 to 8.0~~ inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated **during April and October of each year.** ~~at least once every six (6) months.~~

**Response to Comment 15:**

The permittee has agreed to install a continuous pressure drop monitor to monitor proper operation of the baghouse. When operating properly, the continuous pressure drop monitor will make once per shift visible emissions notations unnecessary. However, visible emissions notations will be needed once per day and once per shift when the continuous pressure drop monitor is not operating correctly. The following changes were made to the permit as a result of this comment.



## Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

### D.1.9 Visible Emissions Notations

---

- (a) Visible emission notations of the chip dryer (CHIP-2) stack exhaust shall be performed **once per day during normal daylight operations when the chip dryer operates for more than one daylight hour. When required in accordance with Section D.1.10(b), visible emissions notations of the chip dryer (CHIP-2) stack exhaust shall be performed** once per shift during normal daylight operations, **when the chip dryer operates for more than one daylight hour** ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.

### D.1.10 Parametric Monitoring

---

- (a) **The Permittee shall operate a continuous monitor of the pressure drop across the thermal chip dryer baghouse at all times when the thermal chip dryer is in operation, unless monitor downtime occurs, in which case the actions described in (b) below shall be initiated. The Permittee shall record the 15-minute block average of static pressure drop across the baghouse controlling the thermal chip dryer at least four equally-spaced times during each hour of operation. When for any one 15-minute block average reading, the pressure drop across the baghouse is outside the normal range of 0.5 to 7.0 inches of water, the Permittee shall take reasonable response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.**
- (b) **For any period during which continuous monitor downtime exceeds four consecutive hours, the Permittee shall record the total static pressure drop across the baghouse controlling the thermal chip dryer at least once per shift when the thermal chip dryer is in operation and initiate visible emissions readings in accordance with Section D.1.9.** When for any one reading, the pressure drop across the baghouse is outside the ~~normal~~ range of ~~1.0 to 8.0~~ **0.5 to 7.0** inches of water ~~or a range established during the latest stack test~~, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. **After the continuous monitor returns to normal operation, the Permittee shall revert back to the requirements of Section D.1.10(a) above.**
- (c) The instruments used for determining the pressure shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated ~~at least once every six months~~ **during April and October of each year.**

### Comment 16:

8. General Motors requests that condition D.1.11 be revised to satisfy safety concerns during the shutdown of the unit, this addition was approved in the facility's existing permit pursuant to permit modification 093-16935-00007 of SSM 093-13639-00007.

#### D.1.11 Broken or Failed Bag Detection

In the event that bag failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), **or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.**

#### **Response to Comment 16:**

The following changes were made as a result of this comment.

#### D.1.11 Broken or Failed Bag Detection

In the event that bag failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), **or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.**

#### **Comment 17:**

9. General Motors requests that condition D.1.12 be revised to allow defective bags to be either replaced or removed from service by capping off the ports leading to the defective bags. This change was approved in the facility's existing permit pursuant to permit modification 093-16935-00007 of SSM 093-13639-00007.

#### D.1.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of the clean end of the baghouse controlling the thermal chip dryer. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced **or removed from service by capping off the ports leading to the defective bags.**

#### **Response to Comment 17:**

As replacement bags are required to be kept on site, IDEM feels that if the baghouse inspection identifies defective bags, there is no reason they should not be immediately replaced. The purpose of baghouse inspections is to ensure the baghouse operates properly, not just to identify problems. Therefore, any problems identified should be fixed. No change was made to the permit as a result of this comment.

### **SECTION D.2**

#### **Comment 18:**

1. General Motors requests that the requirement to have a preventative maintenance plan for the scrap metal crusher be removed from condition D.2.3. There is nothing about the operation of the crusher, which would influence the emissions from the system. The emissions are determined by proper operation of the control equipment (i.e. dust collector). Also, General Motors requests that all references made to the crusher baghouse be changed to dust collector, since this is the more appropriate description for this control equipment.

**D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

---

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the ~~scrap metal crusher and the baghouse~~ **dust collector**.

**Response to Comment 18:**

The requirement to maintain a Preventive Maintenance Plan (PMP) is applicable to any facility that is required by 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits) to obtain a permit. Any preventive maintenance that could effect emissions from the facilities in question should be listed in the PMP. IDEM has determined that the emissions from the crusher itself would not be affected by a PMP, but a PMP would be needed for the dust collector. Therefore, the following changes were made as a result of this comment.

**D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

---

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the ~~scrap metal crusher and the baghouse~~ **dust collector**.

**Comment 19:**

2. General Motors requests that condition D.2.4 be revised to remove the optional wording for ceasing operations. The crusher was tested on May 8, 2003 therefore this requirement has been met and there are no current plans to discontinue this operation.

**D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall ~~permanently cease operation of the crusher (CRUSH)~~, or perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.2.1 and D.2.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

**Response to Comment 19:**

The following changes were made as a result of this comment.

**D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall ~~permanently cease operation of the crusher (CRUSH)~~, or perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.2.1 and D.2.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

**Comment 20:**

3. General Motors requests that the reference to the crusher baghouse be changed to dust collector in condition D.2.5.

**D.2.5 Particulate**

---

Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.2.1 and D.2.2, the ~~dust collector baghouse~~ shall be in operation at all times when the scrap metal crusher (CRUSH) is in operation.

### Response to Comment 20:

The following changes were made as a result of this comment.

#### D.2.5 Particulate

---

Pursuant to SSM 093-13639-00007, issued June 16, 2002, and in order to comply with Conditions D.2.1 and D.2.2, the **dust collector** baghouse shall be in operation at all times when the scrap metal crusher (CRUSH) is in operation.

### Comment 21:

4. General Motors requests that condition D.2.6(a) be removed since the system is adequately monitored for proper operation through pressure drop readings, quarterly inspections and stack testing. Furthermore, conducting visible emissions observations on a per shift basis becomes problematic for those shifts during which 2 hours or less of daylight occurs. For example, scheduling the readings for the night shift during which the early morning hours may occasion a few minutes to an hour of daylight is difficult given that the observation would need to occur during the time that transition from one shift to the next must also occur. Given that the unit's proper operation is already being documented with substantial monitoring data, it makes sense to delete this requirement.

#### ~~D.2.6 Visible Emissions Notations~~

---

~~(a) Visible emission notations of the scrap metal crusher (CRUSH) stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

### Response to Comment 21:

Compliance monitoring conditions, such as these requirements to perform visible emissions notations, are required in order to ensure continuous compliance with the permit requirements. The visible emission notations are needed to indicate compliance with 326 IAC 5-1, and the particulate matter limits pursuant to 326 IAC 6-3-2. Further, while the nature of a facility's operation may not vary from shift to shift, the personnel at the facility does change from shift to shift and OAQ believes that all shifts should be in tune with the work practices necessary to ensure continual compliance with permit requirements. This knowledge and awareness during all shifts can minimize lag time in addressing control failure.

During the public notice period for Significant Source Modification 093-13639-00007, the facility proposed a bag leak detection system equipped with an alarm as an alternative to once per shift visible emission notations. IDEM agreed with the proposal, and the permit was issued with this alternative included. However, during the public notice period for the Minor Permit Modification 093-13639-00007 to Significant Source Modification 093-13639-00007, the facility indicated that they would not be installing a bag leak detection system and requested that the language allowing them to monitor their baghouses in this fashion be removed.

The OAQ believes that visible emissions notations once per operating shift are a reasonable requirement. No changes have been made to the permit as a result of these comments.

### Comment 22:

5. General Motors requests the references to the baghouse be changed to dust collector in condition D.2.7 – D.2.10. General Motors also requests in condition D.2.7 that if a continuous recorder is used to take pressure drop readings that instead of monitoring the instantaneous readings the recorder should monitor a 15-minute moving average of the pressure drop readings during operation.

This would help eliminate alarm conditions when the pressure drop fluctuates for an instant below the normal range. As well, General Motors requests that the requirement to monitor the output of the continuous recording device once per shift be removed since with an automatic recorder the pressure drop will be continuously monitored during operation and would signal an alarm if conditions were outside the permit requirements. In the event of an alarm situation, as specified in condition D.2.7 below, the Compliance Response Plan would be initiated and corrective action taken in accordance with the plan. In addition, General Motors also requests that the calibration period for the pressure gauge be changed to specify the months in which calibration is to occur, instead of basing the calibration on a specific six (6) month period which would fluctuate, making the requirement harder to track. In condition D.2.9 additional information to satisfy safety concerns during the shutdown of the unit is requested, this addition was approved in the facility's existing permit pursuant to permit modification 093-16935-00007 of SSM 093-13639-00007.

#### D.2.7 Parametric Monitoring

---

The Permittee shall record the total static pressure drop across the **dust collectorbaghouse** controlling the scrap metal crusher (CRUSH) at least once per shift when the scrap metal crusher (CRUSH) is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. ~~The output of the continuous recording device shall be monitored once per shift.~~ When for any one reading, **or in the case of a continuous recording device for any 15-minute average**, the pressure drop across the baghouse is outside the normal range of 1.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated **in April and October of each year**~~at least once every six (6) months~~.

#### D.2.8 **Dust CollectorBaghouse** Inspections

---

An inspection shall be performed each calendar quarter of the clean end of the **dust collectorbaghouse** controlling the scrap metal crusher (CRUSH) processes. Inspections required by this condition shall not be performed in consecutive months. All defective **cartridge filtersbags** shall be replaced.

#### D.2.9 Broken or Failed **Cartridge FilterBag** Detection

---

In the event that **cartridge filterbag** failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment **dust collectorsbaghouses**, if failure is indicated by a significant drop in the **dust collector's baghouse's** pressure readings with abnormal visible emissions

or the failure is indicated by an opacity violation, or if **cartridge filterbag** failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), **or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.**

#### D.2.10 Record Keeping Requirements

---

- (a) ~~In order to document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust once per shift.~~
- (b) In order to document compliance with condition D.2.7, the Permittee shall maintain records of total static pressure drop once per shift during normal operation ~~when venting to the atmosphere.~~
- (c) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### Response to Comment 22:

As discussed in the response to Comment 14, OAQ feels that once per shift visible emissions notations are needed in order to ensure continuous compliance with all permit conditions. Therefore, the requested changes to Condition D.2.10 have not been made. OAQ agrees with the requested changes to the other permit conditions. Therefore, the following changes were made as a result of this comment.

#### D.2.7 Parametric Monitoring

---

The Permittee shall record the total static pressure drop across the **dust collectorbaghouse** controlling the scrap metal crusher (CRUSH) at least once per shift when the scrap metal crusher (CRUSH) is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. ~~The output of the continuous recording device shall be monitored once per shift.~~ **or in the case of a continuous recording device for any 15-minute average,** the pressure drop across the baghouse is outside the normal range of 1.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated **in April and October of each year** ~~at least once every six (6) months.~~

#### D.2.8 Dust CollectorBaghouse Inspections

---

An inspection shall be performed each calendar quarter of the clean end of the **dust collectorbaghouse** controlling the scrap metal crusher (CRUSH) processes. Inspections required by this condition shall not be performed in consecutive months. All defective **cartridge filterbags**

shall be replaced.

#### D.2.9 Broken or Failed **Cartridge Filter**~~Bag~~ Detection

In the event that **cartridge filter**~~bag~~ failure has been observed:

- (b) For single compartment **dust collector**~~baghouses~~, if failure is indicated by a significant drop in the **dust collector**~~baghouse's~~ pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if **cartridge filter**~~bag~~ failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), **or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process shall be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.**

### **SECTION D.3**

#### **Comment 23:**

1. General Motors requests that the facility descriptions be updated as follows in accordance with the changes requested to Section A.
  - (c) ~~Two (2) electric induction furnaces, referred to as INDUCT-21, and INDUCT-22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.~~
  - (d) ~~Three (3) electric induction furnaces, referred to as INDUCT-23, INDUCT-24, and INDUCT-25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.~~
  - (e) ~~Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.~~
  - (f) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2207.**
  - (h) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks ~~55, and 56;~~ **and 15.**
  - (m) One (1) natural gas-fired dry hearth furnace, identified as number 14, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
  - (n) One (1) natural gas-fired reverberatory furnace, identified as number 18A, **constructed in**

~~2003~~ authorized in 2002 under CP 093-13639-00007, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.

- (e) ~~One (1) natural gas-fired reverberatory melting furnace, referred to as RF-13 and as PIST MELT #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.~~

#### Response to Comment 23:

As noted previously, the changes made in Section A were also made to Section D.3 accordingly.

### SECTION D.3 FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]:

##### Die Cast Melting

- (c) ~~Two (2) electric induction furnaces, referred to as INDUCT-21, and INDUCT-22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.~~
- (d) ~~Three (3) electric induction furnaces, referred to as INDUCT-23, INDUCT-24, and INDUCT-25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.~~
- (e) ~~Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.~~
- (fc) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2** ~~207~~.
- (gd) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-3 and as DC MELT A - #3, constructed in 1974, with a maximum capacity of 3.4 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 67 and 68.
- (he) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55; **and 56**, ~~and 15~~.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)



**Facility Description [326 IAC 2-7-5(15)]: (Continued)**

**Die Cast Melting**

- (if) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-12 and as DC MELT A - #12, constructed in 1996, with a maximum capacity of 10.0 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 40.0 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 57, 58, and 17.
- (jg) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-16 and as DC MELT A - #16, constructed in 1975, with a maximum capacity of 4.87 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 29.2 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 52, 53, and 16.
- (kh) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.

**Piston Melting**

- (hi) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-13-1.
- (mj) One (1) natural gas-fired dry hearth furnace, identified as number 14, **constructed in 2003**~~authorized in 2002 under CP 093-13639-00007~~, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (nk) One (1) natural gas-fired reverberatory furnace, identified as number 18A, **constructed in 2003**~~authorized in 2002 under CP 093-13639-00007~~, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.
- ~~(o) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-13 and as PIST MELT - #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.~~
- (pl) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-5 and as PIST MELT - #5, constructed in 1977, with a maximum capacity of 4.17 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 283 and 284.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Facility Description [326 IAC 2-7-5(15)]: (Continued)**

**Piston Melting**

- (qm) One (1) natural gas-fired reverberatory melting furnace complex, referred to as complex 6 and RF-6, consisting of two natural gas-fired reverberatory furnaces, constructed in 1999, with a maximum capacity of 5 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and with a combined maximum heat input capacity of 33 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 6-1, 6-3, and charge well stacks 6-2 and 6-4.
- (fn) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-7 and as PIST MELT - #7, constructed in 1976, with a maximum capacity of 6.6 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 39.6 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 275 and 276.
- (so) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-19 and as PIST MELT - #19, constructed in 1978, with a maximum capacity of 4.67 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 28 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 287 and 288.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Comment 24:**

2. General Motors requests that the table provided in condition D.3.1 be updated to remove units that no longer exist namely, all induction furnaces (INDUCT-21 to INDUCT-27) and Reverberatory Furnace RF-13 (PIST MELT - #13). An actual marked up version of the table could not be included with these comments because the table did not readily copy into Microsoft Word from the Acrobat Reader "pdf" document supplied on the IDEM website.

**Response to Comment 24:**

The following changes were made as a result of this comment.

**D.3.1 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and SSM 093-13639-00007, issued June 16, 2002, the particulate emission rate from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
Electric Induction Furnace ( <del>INDUCT-21</del> )	3.3	9.12
Electric Induction Furnace ( <del>INDUCT-22</del> )	3.3	9.12
Electric Induction Furnace ( <del>INDUCT-23</del> )	3.3	9.12
Electric Induction Furnace ( <del>INDUCT-24</del> )	3.3	9.12

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
<del>Electric Induction Furnace (INDUCT-25)</del>	<del>3.3</del>	<del>9.12</del>
<del>Electric Induction Furnace (INDUCT-26)</del>	<del>3.3</del>	<del>9.12</del>
<del>Electric Induction Furnace (INDUCT-27)</del>	<del>3.3</del>	<del>9.12</del>
Reverberatory Furnace RF-2 (DC MELT B - #2)	6.25	14
Reverberatory Furnace RF-3 (DC MELT A - #3)	3.4	9.31
Reverberatory Furnace RF-11 (DC MELT A - #11)	5.1	12.21
Reverberatory Furnace RF-12 (DC MELT A - #12)	10.0	19.18
Reverberatory Furnace RF-16 (DC MELT A - #16)	4.87	11.84
Dry Hearth Furnace Number 10	12.5	22.27
Dry Hearth Furnace Number 13	2.08	6.70
Dry Hearth Furnace Number 14	2.08	6.70
Reverberatory Furnace Number 18A	2.0	6.52
<del>Reverberatory Furnace RF-13 (PIST MELT - #13)</del>	<del>4.08</del>	<del>4.32</del>
Reverberatory Furnace RF-5 (PIST MELT - #5)	4.17	10.67
Reverberatory Furnace Complex 6 (RF-6)	5.0	12.05
Reverberatory Furnace RF-7 (PIST MELT - #7)	6.6	14.52
Reverberatory Furnace RF-19 (PIST MELT - #19)	4.67	11.51

**Comment 25:**

General Motors requests a clarification of the term "in-house returns" in condition D.3.2(j), by changing the term to "General Motors returns". In addition, General Motors requests that "other source's" be changed to "non-General Motors" sources. This will help identify where the returns come from.

**Response to Comment 25:**

IDEM agrees with the proposed changes. Therefore, the following changes have been made to the permit:

D.3.2 PSD Minor Limit [326 IAC 2-2]

---

. . .

- (j) The Permittee shall not melt any post-consumer scrap materials in any of the furnaces at this source. Only ~~in-house~~ **General Motors** returns and/or ~~in-house~~ returns from ~~other non-General Motors~~ **non-General Motors** sources where the composition of the purchased returns have at least the same quality as the ~~source's~~ **General Motors** ~~own in-house~~ returns shall be melted in any of the furnaces. The ~~other source's non-General Motors~~ **non-General Motors** returns shall be specified contractually, and the quality of the returns shall be controlled contractually. Therefore, this source is not considered a secondary metal production facility and is therefore, not one of the 28 listed source categories.

**Comment 26:**

3. General Motors requests that condition D.3.3, D.3.4, D.3.7(e), D.3.8(b-c) be removed from permit in accordance with permit modification 093-16935-00007 of SSM 093-13639-00007, to reflect the current requirements under 40 CFR 63, Subpart RRR. Since the requirements of 40 CFR 63, Subpart RRR only apply to the facility's thermal chip dryer, in accordance with 40 CFR 63.1500(f), all the facility's furnaces are exempt.

~~D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]~~

---

~~The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the furnaces except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to furnaces, numbers 10, 13, 14, and 18A upon startup. These requirements become applicable to all other furnaces on March 24, 2003. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of 40 CFR 63, Subpart RRR apply to these facilities.~~

~~D.3.4 Secondary Aluminum Smelting NESHAP Requirements [40 CFR Part 63, Subpart RRR]~~

---

- ~~(a) Pursuant to 40 CFR 63.1506(e), beginning upon startup, the Permittee shall operate the Group 2 furnaces (Number 10, Number 13, Number 14, Number 18A) using only clean charge as the feedstock and using no reactive flux.~~
- ~~(b) Pursuant to 40 CFR 63.1506(e), beginning on March 24, 2003, the Permittee shall operate the electric induction furnaces (INDUCT-1, INDUCT-22, INDUCT-32, INDUCT-24, INDUCT-25, INDUCT-26, and INDUCT-27) using only clean charge as the feedstock and using no reactive flux.~~
- ~~(c) The Group 1 furnaces at this source (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) are subject to the requirements of this rule.~~

~~D.3.7 Record Keeping Requirements~~

---

- ~~(e) Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of the Group 2 furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, RF13, Number 10, Number 13, Number 14, and Number 18A) including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. This record-keeping shall begin on March 24, 2003 for all furnaces.~~

~~D.3.8 Reporting Requirements~~

---

- ~~(b) Pursuant to 40 CFR 63.151006(r)(2), the Permittee shall submit a signed certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(e) for each 6-month reporting period for furnaces Number 10, Number 13, Number~~

~~14, and Number 18A. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~

- ~~(c) Pursuant to 40 CFR 63.1510(r), on and after March 24, 2003, the Permittee shall submit a signed certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(e) for each 6-month reporting period for furnaces INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, and RF-13 (PIST MELT - #13). Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~

#### **Response to Comment 26:**

The following changes were made as a result of this comment.

#### **~~D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]~~**

~~The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the furnaces except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to furnaces, numbers 10, 13, 14, and 18A upon startup. These requirements become applicable to all other furnaces on March 24, 2003. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of 40 CFR 63, Subpart RRR apply to these facilities.~~

#### **~~D.3.4 Secondary Aluminum Smelting NESHAP Requirements [40 CFR Part 63, Subpart RRR]~~**

- ~~(a) Pursuant to 40 CFR 63.1506(e), beginning upon startup, the Permittee shall operate the Group 2 furnaces (Number 10, Number 13, Number 14, Number 18A) using only clean charge as the feedstock and using no reactive flux.~~
- ~~(b) Pursuant to 40 CFR 63.1506(e), beginning on March 24, 2003, the Permittee shall operate the electric induction furnaces (INDUCT-1, INDUCT-22, INDUCT-32, INDUCT-24, INDUCT-25, INDUCT-26, and INDUCT-27) using only clean charge as the feedstock and using no reactive flux.~~
- ~~(c) The Group 1 furnaces at this source (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) are subject to the requirements of this rule.~~

#### **~~D.3.75 Record Keeping Requirements~~**

- ~~(e) Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of the Group 2 furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, RF-13, Number 10, Number 13, Number 14, and Number 18A) including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. This record-keeping shall begin on March 24, 2003 for all furnaces.~~
- ~~(fe) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

#### **~~D.3.86 Reporting Requirements~~**

- ~~(a) A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

- (b) ~~Pursuant to 40 CFR 63.151006(r)(2), the Permittee shall submit a signed certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period for furnaces Number 10, Number 13, Number 14, and Number 18A. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~
- (c) ~~Pursuant to 40 CFR 63.1510(r), on and after March 24, 2003, the Permittee shall submit a signed certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period for furnaces INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, and RF-13 (PIST MELT - #13). Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~

**Comment 27:**

4. General Motors requests that condition D.3.5 be deleted, since the permit already fixes the quantity and type of charge to the units and the amount of flux that can be used, there are no other operational parameters for the units that can effect the emissions. Because of this, a Preventative Maintenance Plan is not necessary, or appropriate for these units.

~~D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.~~

**Response to Comment 27:**

The requirement to maintain a Preventive Maintenance Plan (PMP) is applicable to any facility that is required by 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits) to obtain a permit. Any preventive maintenance that could effect emissions from the facilities in question should be listed in the Preventive Maintenance Plan. Proper maintenance and operation of the furnace burners are needed to minimize emissions by ensuring complete and efficient combustion. Poorly maintained burners could lead to an increase in CO and VOC emissions. For this reason, the condition was not modified.

**Comment 28:**

5. General Motors requests that condition D.3.6(c) be deleted since the electric induction furnaces have ceased operation.

~~D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]~~

- (c) ~~Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall cease operations of all induction furnaces or perform PM and PM10 testing on one of the electric induction furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, and RF-13) using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.3.1 and D.3.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.~~

**Response to Comment 28:**

The following changes were made as a result of this comment.

**D.3.64 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

---

- (c) ~~Pursuant to SSM093-13639-00007, issued June 16, 2002, by July 29, 2003, the Permittee shall cease operations of all induction furnaces or perform PM and PM10 testing on one of the electric induction furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, and RF-13) using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.3.1 and D.3.2. PM10 includes filterable and condensable PM10. This test shall be repeated at least five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.~~

**TECHNICAL SUPPORT DOCUMENT**

**Comment 29:**

1. **Permitted Emission Units and Pollution Control Equipment** - General Motors requests that this section be revised to reflect the updated information in Section A of the permit.

- (b) One (1) scrap metal crusher device, referred to as CRUSH, constructed in 1974 with a maximum crushing capacity of 37.5 tons of aluminum scrap per hour, with emissions controlled by a baghouse, and exhausting to stack **CRUSH-1s 13 and 13A**.
- (c) ~~Two (2) electric induction furnaces, referred to as INDUCT 21, and INDUCT 22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.~~
- (d) ~~Three (3) electric induction furnaces, referred to as INDUCT 23, INDUCT 24, and INDUCT 25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.~~
- (e) ~~Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.~~
- (f) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **2-1 and 2-2207**.
- (h) One (1) natural gas-fired reverberatory ~~holding~~ furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks **55; and 56; and 15**.
- (m) One (1) natural gas-fired dry hearth furnace, identified as number 14, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (n) One (1) natural gas-fired reverberatory furnace, identified as number 18A, **constructed in 2003**~~authorized in 2002 under CP-093-13639-00007~~, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of

aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.

- ~~(e) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-13 and as PIST MELT #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.~~

#### **Natural Gas-Fired Boiler**

- (t) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

#### **Comment 30:**

2. **Existing Approvals** - General Motors requests that this section be revised to reflect the new pending minor permit modification and a recently issued final minor permit modification.

The source has constructed or has been operating under the following previous approvals:

- (a) **MPM 093-16988-00007 to SSM 093-13639-00007, pending;**  
(b)(a) MPM 093-~~16935~~13639-00007 to SSM 093-13639-00007, **issued June 9, 2003**~~pending;~~

#### **Comment 31:**

3. **Potential to Emit** – General Motors requests that the following statement be removed since the facility does not emit HAPs in the stated quantities.

- ~~(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.~~

#### **Comment 32:**

4. **Potential to Emit After Issuance** - General Motors requests that the following statement be revised as indicated, since the control equipment is currently federally enforceable under the existing minor permit modification 093-16935-00007 to the significant source modification 093-13639-00007 and under 40 CFR 63 Subpart RRR.

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. ~~The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.~~

#### **Comment 33:**

5. **Federal Rule Applicability** - General Motors requests that the text concerning the applicability of facility furnaces to 40 CFR 63, Subpart RRR be removed since these requirements are no longer applicable, only the chip dryer is regulated at this source.

This source is not a major source of HAPs; however, ~~the thermal chip dryer is~~ **furnace Number 10, Number 13, Number 14, and Number 18A** are subject to the requirements of 40 CFR 63, Subpart RRR (National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum



~~Production) because this rule includes provisions for area sources, as well as major sources of HAPs. Some other existing facilities at this source are also subject to the requirements of 40 CFR 63, Subpart RRR.~~

**Comment 34:**

6. **40 CFR 63, Subpart RRR Requirements for furnace Number 10, 13, 14, and 18A** - General Motors requests that this section be removed in its entirety since these requirements are no longer applicable to the furnaces.  
~~Furnace Number 10, 13, 14, and 18A are considered Group 2 furnaces under the requirements of 40 CFR 63, Subpart RRR because these furnaces melt only clean charge, as defined in 40 CFR 63.1503, and perform no fluxing. The limits and conditions of 40 CFR 63, Subpart RRR will apply to furnace Number 10, 13, 14, and 18A upon startup. The compliance date of this rule is March 24, 2003.~~

*~~General Provisions~~*

~~The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to furnace Number 10, 13, 14, and 18A except when otherwise specified in 40 CFR 63, Subpart RRR.~~

*~~Operating Requirements~~*

~~Pursuant to 40 CFR 63.1506(o), the Permittee shall operate furnace Number 10, 13, 14, and 18A using only clean charge as the feedstock and using no reactive flux.~~

*~~Record Keeping and Reporting Requirements~~*

~~Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of these furnaces, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. The Permittee shall also submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~

**Comment 35:**

7. **40 CFR 63, Subpart RRR Requirements for the Thermal Chip Dryer (CHIP-2)** - General Motors requests that any language regarding the labeling of the chip dryer and references to secondary aluminum processing unit (SAPU) plans be removed from this section, in accordance with similar change requests made in Section D.1 of the permit.

~~(4) The Permittee shall provide and maintain easily visible labels at each affected unit that identifies the applicable emission limit and means of compliance [40 CFR 63.1506(b)]. The labels shall include:~~

~~(A) The type of affected emission unit (i.e., thermal chip dryer (CHIP-2)); and~~

~~(B) The applicable operational standard and control method.~~

~~(5) The Permittee shall inspect the labels for each affected unit at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible [40 CFR 63.1510(e)].~~

- (9) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status reports no more than 60 days after March 24, 2003 for the thermal chip dryer. The notification must be signed by the responsible official who must certify its accuracy. The report shall include:
- ~~(C) Unit labeling as described in 40 CFR 63.1506(b), including process type or each affected unit classification and operating requirements.~~
- (12) The Permittee shall maintain files of all information, including reports and notifications, required by 40 CFR 63.10 and 40 CFR 63.1517. The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (3) years of records may be retained off-site. The Permittee may retain records on microfilm, computer disks, magnetic tape or microfiche. In addition to the general records required by 40 CFR 60.10(b), the Permittee shall maintain:
- ~~(B) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.~~
- (D) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
- ~~(iii) Site specific secondary aluminum processing unit emission plan.~~

**Comment 36:**

8. **40 CFR 63, Subpart RRR Requirements for the Group 2 Furnaces** - General Motors requests that this section be removed from the TSD since there are no requirements for these units, at this facility, under 40 CFR 63, Subpart RRR.

*~~General Provisions~~*

~~The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the Group 2 furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, and INDUCT-27) except when otherwise specified in 40 CFR 63, Subpart RRR.~~

~~40 CFR 63, Subpart RRR Requirements~~

~~Pursuant to 40 CFR 63.1506(o), the Permittee shall operate these furnaces using only clean charge as the feedstock and using no reactive flux. The compliance date of this rule is March 24, 2003. Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of these furnaces, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. The Permittee shall also submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).~~

**Comment 37:**

9. **40 CFR 63, Subpart RRR Requirements for the Group 1 Furnaces** - General Motors requests that this section be removed from the TSD since there are no requirements for these units, at this facility, under 40 CFR 63, Subpart RRR.

*~~General Provisions~~*

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the Group 1 furnaces (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) except when otherwise specified in 40 CFR 63 Subpart RRR.

#### *40 CFR 63, Subpart RRR Requirements*

The requirements of the NESHAP 40 CFR 63, Subpart RRR apply to these furnaces. Pursuant to the current version of the rule, these furnaces are required to comply with all the emission limits, operating standards, monitoring, testing, record keeping, and reporting requirements as Group 1 furnaces located at secondary smelting plants. The compliance date of the rule is March 24, 2003. EPA and the American Foundrymen's Society recently entered into a settlement agreement regarding the requirements of this rule as it applies to Group 1 furnaces at foundries and die cast facilities. EPA proposed changes to the NESHAP on June 14, 2002. These changes, as described in the settlement agreement, would only require this source to keep records documenting that the Group 1 furnaces use only clean charge. EPA also proposes to expand the definition of "clean charge" in the proposed upcoming rule changes.

As a result of these expected changes, the detailed requirements of the NESHAP as currently applicable to the existing Group 1 furnaces at this source, will not be spelled out in detail in this permit. Rather, the permit will state that the Group 1 furnaces (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) at this source are subject to the requirements of 40 CFR 63, Subpart RRR and will require the source to comply with those requirements as they exist as of the compliance date of the rule (March 24, 2003). The permit will also include a condition requiring the Permittee to apply for a Permit Modification within 30 days after the rule changes are final but no later than March 24, 2003, so that the detailed requirements of 40 CFR 63, Subpart RRR as they will apply to the Group 1 furnaces, can be added to the permit.

#### *(d) — 40 CFR 64 (Compliance Assurance Monitoring)*

In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant; 2) the unit uses a control device to achieve compliance with any such emission limitation or standard; and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classified as a major source.

For this source, furnace Number 10, 13, 14, and 18A will be uncontrolled and therefore, are not subject to the requirements of CAM. Additionally, none of the facilities at this plant have emissions before controls in excess of major source thresholds. Therefore, none of the facilities at this plant are subject to the requirements of 40 CFR 64.

#### **Response to Comments 29 through 37:**

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

**Comment 38:**

- 10. State Rule Applicability – Chip Dryer (CHIP-2)** – the process weight rate of the chip dryer is more accurately described as 7.60 tons/hour.

**Response to Comment 38:**

As mentioned in the response to Comments 28 through 36 above, no changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. However, as a result of this comment, the following changes were made to the permit.

**A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]**

This stationary source consists of the following emission units and pollution control devices:

**Chip Processing**

- (a) One (1) natural gas-fired aluminum chip dryer constructed in 1974, referred to as CHIP-2, with a maximum capacity of ~~5.85~~ **7.60** tons of aluminum per hour and a maximum heat input capacity of 6.83 million Btu per hour, with emissions controlled by a baghouse and an afterburner AB-1, and exhausting to stack 10.

**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

**Chip Processing**

- (a) One (1) natural gas-fired aluminum chip dryer constructed in 1974, referred to as CHIP-2, with a maximum capacity of ~~5.85~~ **7.60** tons of aluminum per hour and a maximum heat input capacity of 6.83 million Btu per hour, with emissions controlled by a baghouse and an afterburner AB-1, and exhausting to stack 10.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**D.1.1 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and SSM 093-13639-00007 issued June 16, 2002, the particulate from the aluminum chip dryer (CHIP-2) shall not exceed ~~13.39~~ **15.96** pounds per hour when operating at a process weight rate of ~~5.85~~ **7.60** tons of aluminum per hour. The pounds per hour limitation was calculated with the following equation:

**Comment 39:**

- 11. State Rule Applicability – Furnaces** – The table in this section should be revised to reflect units that no longer exist namely, all induction furnaces (INDUCT-21 to INDUCT-27) and Reverberatory Furnace RF-13 (PIST MELT - #13). An actual marked up version of the table could not be included with these comments because the table did not readily copy into Microsoft Word from the Acrobat Reader “pdf” document supplied on the IDEM website.

**Comment 40:**

- 12. Testing Requirements** – General Motors requests that the testing requirement for the electric induction furnaces be removed from the table in this section since these units have ceased operation.

**Comment 41:**

- 13. Compliance Requirements** – General Motors requests that monitoring conditions in this section also be changed in accordance with comments provided in Section D of the permit.

**Response to Comments 39 through 41:**

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

**Comments from EPA**

On July 3, 2003, Ethan Chatfield from EPA Region V submitted comments on the proposed Part 70 Operating Permit. The summary of the comments is as follows:

**EPA Comment 1:**

Condition D.1.8: 40 CFR 63.1510(e) of Subpart RRR requires that applicable facilities install and operate a device that measures and records the throughput of feed/charge. Include or explain why this provision was excluded.

**Response to EPA Comment 1:**

The chip dryer is subject to the measurement requirements cited above, and as allowed under 40 CFR 63.1510(e), on April 15, 2003 EPA authorized the monitoring of aluminum production rate instead of feed/charge rate. EPA also approved the limit in terms of micrograms per megagram of "dried chips" instead of per megagram of "feed/charge". As a result of this comment, the following changes have been made to the permit:

**D.1.4 Secondary Aluminum Smelting NESHAP Requirements [40 CFR Part 63, Subpart RRR]**

(a) Pursuant to 40 CFR 63.1505(c)(2), on or after the date the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator of the thermal chip dryer (CHIP-2) must not discharge or cause to be discharged to the atmosphere emissions in excess of 2.50 micrograms total polychlorinated dibenzofurans (D/F) international Toxicity Equivalent (TEQ) per megagram ( $3.5 \times 10^{-5}$  gr per ton) of ~~feed/charge~~ **dried chips**.

**D.1.8 Secondary Aluminum Smelting NESHAP Monitoring Requirements [40 CFR Part 63, Subpart RRR]**

- (d) Pursuant to 40 CFR 63.1510(e), the Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of dry chips processed through the afterburner for each operating cycle or time period used in the performance test consistent with US EPA's April 15, 2003 approval of alternative monitoring for the thermal chip dryer.

## EPA Comment 2:

Condition D.1.14(b): 40 CFR 63.1516(b)(2)(i) requires that the facility submit a certification report that only unpainted chip were used as feedstock. Include or explain why this provision was excluded.

## Response to EPA Comment 2:

The facility is required to submit the certification report as cited above. As a result of this comment, the following changes have been made to the permit:

### D.1.14 Reporting Requirements [40 CFR 63, Subpart RRR]

---

- (b) On and after March 24, 2003, the Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring Plan. When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur [40 CFR 63.1516(b)]:
  - (3) **Each report must include a certification that "only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period".**

Upon further consideration, IDEM, OAQ has decided to make the following changes to this permit, so that it will reflect modifications made in Administrative Amendment 093-17902-00007.

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

...

#### Die Cast Melting

- (e) One (1) natural gas-fired reverberatory furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55, ~~and~~ 56, **and RF-11-H5.**

...

#### Piston Melting

- (i) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum ~~melt rate~~ **capacity** of 2.08 tons of aluminum per hour, **and one (1) pound of inorganic flux per ton of metal**, with emissions uncontrolled, and exhausting to stack DH-13-1.
- (j) One (1) natural gas-fired dry hearth furnace, identified as number 14, constructed in 2003, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum ~~melt rate~~ **capacity** of 2.08 tons of aluminum per hour, **and one (1) pound of**

**inorganic flux per ton of metal**, with emissions uncontrolled, and exhausting to stack DH-14-1.

- (k) One (1) natural gas-fired reverberatory furnace, identified as number 18A, constructed in 2003, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum ~~melt rate capacity~~ of 2.0 tons of aluminum per hour, **nine (9) pounds of inorganic flux per ton of metal, and two (2) pounds of organic flux per ton of metal**, with emissions uncontrolled, and exhausting to stacks 261 and 264.

...

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]:

##### Die Cast Melting

...

- (e) One (1) natural gas-fired reverberatory furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55, ~~and 56~~, **and RF-11-H5**.

...

##### Piston Melting

- (i) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum ~~melt rate capacity~~ of 2.08 tons of aluminum per hour, **and one (1) pound of inorganic flux per ton of metal**, with emissions uncontrolled, and exhausting to stack DH-13-1.
- (j) One (1) natural gas-fired dry hearth furnace, identified as number 14, constructed in 2003, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum ~~melt rate capacity~~ of 2.08 tons of aluminum per hour, **and one (1) pound of inorganic flux per ton of metal**, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (k) One (1) natural gas-fired reverberatory furnace, identified as number 18A, constructed in 2003, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum ~~melt rate capacity~~ of 2.0 tons of aluminum per hour, **nine (9) pounds of inorganic flux per ton of metal, and two (2) pounds of organic flux per ton of metal**, with emissions uncontrolled, and exhausting to stacks 261 and 264.

...





## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Part 70 Operating Permit**

#### **Source Background and Description**

Source Name: General Motors Corporation - GMPTG - Bedford  
Source Location: 105 GM Drive, Bedford, Indiana 47421  
County: Lawrence  
SIC Code: 3363, 3365  
Operation Permit No.: T093-5652-00007  
Permit Reviewer: ERG/KC

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from General Motors Corporation - GMPTG - Bedford relating to the operation of an aluminum die casting facility. This Part 70 permit contains provisions intended to satisfy the requirements of the construction permit rules.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

##### **Chip Processing**

- (a) One (1) natural gas-fired aluminum chip dryer constructed in 1974, referred to as CHIP-2, with a maximum capacity of 5.85 tons of aluminum per hour and a maximum heat input capacity of 6.83 million Btu per hour, with emissions controlled by a baghouse and an afterburner AB-1, and exhausting to stack 10.

##### **Aluminum Crushing**

- (b) One (1) scrap metal crusher device, referred to as CRUSH, constructed in 1974 with a maximum crushing capacity of 37.5 tons of aluminum scrap per hour, with emissions controlled by a baghouse, and exhausting to stacks 13 and 13A.

##### **Die Cast Melting**

- (c) Two (2) electric induction furnaces, referred to as INDUCT-21, and INDUCT-22, constructed in 1977, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-1, and exhausting to stack 14.
- (d) Three (3) electric induction furnaces, referred to as INDUCT-23, INDUCT-24, and INDUCT-25, constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-2, and exhausting to stack 15.
- (e) Two (2) electric induction furnaces, referred to as INDUCT-26 and INDUCT-27, both constructed in 1981, each with a maximum capacity of 3.3 tons of aluminum per hour, controlled by a common venturi scrubber system VS-3, and exhausting to stack 16.

- (f) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-2 and as DC MELT B - #2, constructed in 1999, with a maximum capacity of 6.25 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stack 207.
- (g) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-3 and as DC MELT A - #3, constructed in 1974, with a maximum capacity of 3.4 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 67 and 68.
- (h) One (1) natural gas-fired reverberatory holding furnace, referred to as RF-11 and as DC MELT A - #11, constructed in 1974, with a maximum capacity of 5.1 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 20.4 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 55, 56, and 15.
- (i) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-12 and as DC MELT A - #12, constructed in 1996, with a maximum capacity of 10.0 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 40.0 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 57, 58, and 17.
- (j) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-16 and as DC MELT A - #16, constructed in 1975, with a maximum capacity of 4.87 tons of metal per hour and 7 pounds of inorganic flux per ton of metal, and a maximum heat input capacity of 29.2 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 52, 53, and 16.
- (k) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.

#### **Piston Melting**

- (k) One (1) natural gas-fired dry hearth furnace, identified as number 10, constructed in 2002, with a maximum heat input capacity of 50 million British thermal units per hour, and a maximum melt rate of 12.5 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks DH-10-1, DH-10-2, and DH-10-3.
- (l) One (1) natural gas-fired dry hearth furnace, identified as number 13, constructed in 2002, with a maximum heat input capacity of 10 million British thermal units per hour, and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-13-1.
- (m) One (1) natural gas-fired dry hearth furnace, identified as number 14, authorized in 2002 under CP 093-13639-00007, with a maximum heat input capacity of 10 million British thermal units per hour and a maximum melt rate of 2.08 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stack DH-14-1.
- (n) One (1) natural gas-fired reverberatory furnace, identified as number 18A, authorized in 2002 under CP 093-13639-00007, with a maximum heat input capacity of 7 million British thermal units per hour, and a maximum melt rate of 2.0 tons of aluminum per hour, with emissions uncontrolled, and exhausting to stacks 261 and 264.

- (o) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-13 and as PIST MELT - #13, constructed in 1996, with a maximum capacity of 1.08 tons of metal per hour, and a maximum heat input capacity of 5.2 million Btu per hour, with emissions uncontrolled, and exhausting to stack 294.
- (p) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-5 and as PIST MELT - #5, constructed in 1977, with a maximum capacity of 4.17 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 25 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 283 and 284.
- (q) One (1) reverberatory melting furnace complex, referred to as complex 6 and RF-6, consisting of two natural gas-fired reverberatory furnaces, constructed in 1999, with a maximum capacity of 5 tons of metal per hour and 0.1 pounds of inorganic flux per ton of metal, and with a combined maximum heat input capacity of 33 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 6-1, 6-3, and charge well stacks 6-2 and 6-4.
- (r) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-7 and as PIST MELT - #7, constructed in 1976, with a maximum capacity of 6.6 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 39.6 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 275 and 276.
- (s) One (1) natural gas-fired reverberatory melting furnace, referred to as RF-19 and as PIST MELT - #19, constructed in 1978, with a maximum capacity of 4.67 tons of metal per hour, 9 pounds of inorganic flux per ton of metal, 2 pounds of organic flux per ton of metal, and a maximum heat input capacity of 28 million Btu per hour, with emissions uncontrolled, and exhausting to stacks 287 and 288.
- (t) One (1) natural gas-fired boiler, referred to as the POWER - tool room boiler, constructed in 1966, with a maximum heat input capacity of 10.05 million Btu per hour, with emissions uncontrolled, and exhausting to stack 30 which has a height of 50 feet.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval**

There are no new emission units and pollution control equipment receiving advanced source modification approval at this source during this review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2, 326 IAC 8-3-5].
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].

- (c) Grinding and machining operations [326 IAC 6-3-2].
- (d) Emission units with PM and PM<sub>10</sub> emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year [326 IAC 6-3-2]:
  - (1) Chip and crushed material storage piles;
  - (2) Sniff units;
  - (3) EDM carbon etchers, tool sharpening, and abrasive cleaning;
  - (4) Small sand blasters;
  - (5) Refractory powder mixing station;
  - (6) Clipper brick saw;
  - (7) Feed hopper and conveyor for induction furnaces;
  - (8) Maintenance paint spray and mold ladle coating booths;
  - (9) Ladle weigh station;
  - (10) Die cast machines and associated small holding furnaces;
  - (11) Permanent mold machines and associated small holding furnaces;
  - (12) Barrel furnace;
  - (13) Vacuum pumps;
  - (14) Fire extinguisher filling;
  - (15) Dross presses;
  - (16) Wastewater treatment lime bin; and
  - (17) Wastewater treatment 1500 gallon AST HCl;
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour.
- (f) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (g) A petroleum fuel, other than gasoline, having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (h) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

- (i) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (j) Refractory storage not requiring air pollution control equipment.
- (k) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.
- (l) Machining where an aqueous cutting coolant continuously floods the machine interface.
- (m) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C or having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20 degrees C; the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (n) Closed loop heating and cooling systems.
- (o) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (p) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
- (q) Forced and induced draft cooling tower system not regulated under a NESHAP.
- (r) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (s) Paved and unpaved roads and parking lots with public access.
- (t) Asbestos abatement projects regulated by 326 IAC 14-10.
- (u) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.
- (v) On-site fire and emergency response training approved by the department.
- (w) Diesel generators not exceeding 1600 horsepower.
- (x) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38 degrees C.

### Existing Approvals

The source has constructed or has been operating under the following previous approvals:

- (a) MPM 093-13639-00007 to SSM 093-13639-00007, pending;
- (b) SSM093-13639-00007, issued June 16, 2002 (Note: This permit superseded all previous approvals);
- (c) 093-14554-00007, Revocation of AA093-14107-00007, issued June 21, 2001;
- (d) AA093-14107-00007, AA to MSM093-10768-00007, issued May 29, 2001;

- (e) I093-13639-00007, issued January 16, 2001;
- (f) MSM093-10768-00007, issued May 3, 1999;
- (g) I093-10768-00007, issued April 5, 1999;
- (h) CP093-8868-00007, issued February 16, 1999;
- (i) R093-5877-00007, issued July 17, 1996;
- (j) CP093-4590-0007, issued October 17, 1995;
- (k) OP47-08-86-0066, issued January 19, 1983;
- (l) OP47-08-86-0067, issued January 19, 1983;
- (m) OP47-08-86-0068, issued January 19, 1983;
- (n) OP47-08-86-0069, issued January 19, 1983;
- (o) OP47-08-86-0070, issued January 19, 1983;
- (p) OP47-03-86-0060, issued May 24, 1982;
- (q) Registration, issued April 15, 1982;
- (r) PC(47)1486, issued April 28, 1981;
- (s) AA to OP47-07-82-0047, issued August 17, 1981;
- (t) Exemption, issued August 22, 1979;
- (u) OP47-07-82-0055, issued July 18, 1979;
- (v) PC(47)1370, issued March 14, 1979;
- (w) OP47-07-82-0047, issued August 1, 1978;
- (x) PC(47)1237, issued May 15, 1978;
- (y) PC(47)1134, issued August 23, 1977;
- (z) PC(47)1102, issued August 16, 1977; and
- (aa) PC(47)1071, issued February 15, 1977.

All terms and conditions from previous permits issued pursuant to permitting programs approved into the State implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 permit:

Condition Revised: Major source of HAP limits in Condition D.3.2(f), (g), and (i) of SSM093-13639-00007, issued June 16, 2002.

- (f) The HF emissions from the use of organic flux shall not exceed 0.03 pounds per pound of organic flux used.
- (g) The hexachloroethane emissions from the use of organic flux shall not exceed 0.41 pounds per pound of organic flux used.
- (i) The HF emissions from the use of inorganic flux shall not exceed 0.02 pounds per pound of inorganic flux used.

Reason for Revision: Based on data obtained from stack testing performed in June 2002, the limits have been updated. These updated limits still ensure that emissions of any single HAP remain below ten (10) tons per year and emissions of any combination of HAPs remain below twenty-five (25) tons per year. The overall PTE limit remains the same, but the emission factors have been changed.

- (f) The HF emissions from the use of organic flux shall not exceed 0.06 pounds per pound of organic flux used.
- (g) The hexachloroethane emissions from the use of organic flux shall not exceed 0.004 pounds per pound of organic flux used.
- (i) The HF emissions from the use of inorganic flux shall not exceed 0.03 pounds per pound of inorganic flux used.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively incomplete Part 70 permit application for the purposes of this review was received on April 1, 1996. Additional information received on December 3, 1998 and April 5, 1999 makes the Part 70 permit application administratively complete.

A notice of completeness letter was mailed to the source on January 8, 1997.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (page 1 through 16). Emission calculations were taken from SSM093-13639-00007.

#### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted,

stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	893.66
PM-10	893.66
SO <sub>2</sub>	0.99
VOC	142.75
CO	141.83
NO <sub>x</sub>	168.84

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
HCl	20.43
HF	2.94
Hexachloroethane	14.35
Lead	8.443x10 <sup>-4</sup>
Benzene	3.546x10 <sup>-3</sup>
Dichlorobenzene	2.026x10 <sup>-3</sup>
Formaldehyde	0.1266
Hexane	3.04
Toluene	5.741x10 <sup>-3</sup>
Cadmium	1.857x10 <sup>-3</sup>
Chromium	2.364x10 <sup>-3</sup>
Manganese	6.417x10 <sup>-4</sup>
Nickel	3.546x10 <sup>-3</sup>
TOTAL	40.44

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10, VOC, CO, and NOx are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

## Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 OAQ emission data.



Pollutant	Actual Emissions (tons/year)
PM	---
PM-10	38.63
SO <sub>2</sub>	0.39
VOC	1.8
CO	22.49
NO <sub>x</sub>	89.95
HAP (specify)	

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)						
Process/Facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Scrap Metal Crusher (CRUSH)	1.03 (326 IAC 2-2)	1.03 (326 IAC 2-2)	0	0	0	0	0
Chip Dryer (CHIP-2)	58.42 (326 IAC 6-3-2)	58.42 (326 IAC 6-3-2)	0.02	51.41 (326 IAC 2-2)	2.51	2.99	See below <sup>2</sup>
All Furnaces <sup>1</sup>	155.75 (326 IAC 2-2)	155.75 (326 IAC 2-2)	0.97	26.38	135.62	161.45	14.0
Maintenance Painting	0	0	0	2.74	0	0	Less than 1
Tool Room Boiler	0.3	0.3	0	0.2	3.7	4.4	0.083
Total Emissions	Less than 250	Less than 250	0.99	80.73	141.83	168.8	Less than 25

<sup>1</sup> All furnaces includes the following: INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-26, INDUCT-27, RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A #16), RF-13 (PIST MELT - #13), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), RF-19 (PIST MELT - #19), Number 10, Number 13, Number 14, and Number 18A.

<sup>2</sup> HAPs from dryer natural gas combustion are included with the HAPs emitting by All Furnaces.

### County Attainment Status

The source is located in Lawrence County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lawrence County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Lawrence County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

### **Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification. The tool room boiler is not subject to the requirements of the 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) even though it has a capacity greater than ten (10) million British thermal units per hour because it was constructed prior to June 9, 1989 and has not been modified since that date.
- (b) The parts washers are not subject to the requirements of the 40 CFR 63, Subpart T (National Emission Standards for Hazardous Solvent Cleaning) because the solvents used do not contain any of the following halogenated solvents in concentrations greater than five percent (5%) by weight: methylene chloride, 1,1,1-trichloroethane, trichloroethylene, perchloroethylene, carbon tetrachloride, or chloroform.
- (c) This source has potential uncontrolled HCl emissions of greater than ten (10) tons per year. The HCl emissions are generated from the use of flux materials. In order to limit HCl emissions to less than 10 tons per year, the source has requested a limit on the amount of flux used at the source. With this limit, emissions of any single HAP will be less than ten (10) tons per year and emissions of all HAPs combined will be less than twenty-five (25) tons per year. The specific flux usage limit is as follows:

The amount of organic flux used shall not exceed 34,909 pounds per year, where one hundred (100) pounds of salt flux usage is equivalent to one (1) pound of organic flux usage. This usage limit is equivalent to HCl emissions of 9.6 tons per year from flux usage. Another 0.3 tons per year of HCl is emitted elsewhere in the plant. Therefore, the

total HCl emissions from this source are limited to less than ten (10) tons per year. This limit will also limit the total HAP emissions from the furnaces to less than twenty-one (21) tons per year. When including the HAP emissions from combustion and maintenance painting, the source total HAP emissions are limited to less than twenty-five (25) tons per year.

This source is not a major source of HAPs; however, furnace Number 10, Number 13, Number 14, and Number 18A are subject to the requirements of 40 CFR 63, Subpart RRR (National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production) because this rule includes provisions for area sources, as well as major sources of HAPs. Some other existing facilities at this source are also subject to the requirements of 40 CFR 63, Subpart RRR.

#### **40 CFR 63, Subpart RRR Requirements for furnace Number 10, 13, 14, and 18A**

Furnace Number 10, 13, 14, and 18A are considered Group 2 furnaces under the requirements of 40 CFR 63, Subpart RRR because these furnaces melt only clean charge, as defined in 40 CFR 63.1503, and perform no fluxing. The limits and conditions of 40 CFR 63, Subpart RRR will apply to furnace Number 10, 13, 14, and 18A upon startup. The compliance date of this rule is March 24, 2003.

##### *General Provisions*

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to furnace Number 10, 13, 14, and 18A except when otherwise specified in 40 CFR 63, Subpart RRR.

##### *Operating Requirements*

Pursuant to 40 CFR 63.1506(o), the Permittee shall operate furnace Number 10, 13, 14, and 18A using only clean charge as the feedstock and using no reactive flux.

##### *Record Keeping and Reporting Requirements*

Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of these furnaces, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. The Permittee shall also submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).

#### **40 CFR 63, Subpart RRR Requirements for the Thermal Chip Dryer (CHIP-2)**

##### *General Provisions*

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the thermal chip dryer (CHIP-2) except when otherwise specified in 40 CFR 63, Subpart RRR.

##### *40 CFR 63, Subpart RRR Requirements*

- (1) On or after the date the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator of the thermal chip dryer (CHIP-2) must not discharge or cause to be discharged to the atmosphere emissions in excess of 2.50 micrograms total polychlorinated dibenzofurans (D/F) international Toxicity Equivalent (TEQ) per megagram ( $3.5 \times 10^{-5}$  gr per ton) of feed/charge.
- (2) The owner or operator of a thermal chip dryer (CHIP-2) with emissions controlled by an afterburner must:
  - (A) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.
  - (B) Operate the afterburner in accordance with the OM&M plan.
  - (C) Operate the thermal chip dryer (CHIP-2) using only unpainted aluminum chips as the feedstock.
- (3) The Permittee shall prepare a written Operation, Maintenance, and Monitoring (OM&M) Plan and shall submit the plan to the applicable permitting authority for review and approval. Any subsequent changes to the plan shall be submitted to the applicable permitting authority for review and approval. Pending approval of the initial or amended plan, the Permittee shall comply with the conditions of the submitted plan. The plan shall include the following information [40 CFR 63.1510(b)]:
  - (A) The process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each affected unit and control device.
  - (B) A monitoring schedule for each affected unit.
  - (C) Procedures for the proper operation and maintenance of each affected unit and control device used to meet the applicable emission limit in 40 CFR 63.1505.
  - (D) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
    - (i) Calibration and certification of accuracy of each monitoring device, at least once every six (6) months, according to the manufacturer's instructions; and
    - (ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A.
  - (E) Procedures for monitoring process and control parameters, including procedures for annual inspections of afterburners, and if applicable, the procedures to be used for determining feed (or throughput) weight if a measurement device is not used.

- (F) Corrective actions to be taken when process operating parameters or add-on control device parameters deviate from the value or range established in (A) above, including:
  - (i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
  - (ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date corrective action was completed.
- (G) A maintenance schedule for each affected unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

The completion of the initial performance tests for the secondary aluminum processing units shall be considered to be the date of approval of the Operation, Maintenance and Monitoring Plan by IDEM, OAQ [63.1506(a)(2)].

- (4) The Permittee shall provide and maintain easily visible labels at each affected unit that identifies the applicable emission limit and means of compliance [40 CFR 63.1506(b)]. The labels shall include:
  - (A) The type of affected emission unit (i.e., thermal chip dryer (CHIP-2)); and
  - (B) The applicable operational standard and control method.
- (5) The Permittee shall inspect the labels for each affected unit at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible [40 CFR 63.1510(c)].
- (6) The Permittee must monitor the afterburner as follows:
  - (A) The Permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A.
  - (B) The temperature monitoring device must:
    - (i) Be installed at the exit of each afterburner's combustion zone.
    - (ii) Record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
    - (iii) Have a recorder response range including zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m).

- (iv) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- (C) Conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
  - (i) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
  - (ii) Inspection for proper adjustment of combustion air;
  - (iii) Inspection of internal structures (e.g., baffles) to ensure structural integrity;
  - (iv) Inspection of dampers, fans, and blowers for proper operation;
  - (v) Inspection for proper sealing;
  - (vi) Inspection of motors for proper operation;
  - (vii) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;
  - (viii) Inspection of afterburner shell for corrosion and/or hot spots;
  - (ix) Documentation verifying that, for the burn cycle following the inspection, the afterburner is operating properly and all necessary adjustments have been made;
  - (x) Verification that the equipment is maintained in good operating condition.
  - (xi) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.
- (7) Prior to conducting the performance test required by 40 CFR 63, Subpart RRR, the Permittee shall prepare and submit a site-specific test plan in compliance with 40 CFR 63.7(c). Following approval of the site-specific test plan, the Permittee shall demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected unit and report the results in the notification of compliance report. The Permittee shall conduct performance tests in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR. The Permittee shall use Method 23 in Appendix A to 40 CFR 60 or an alternative method approved by the Administrator to measure the concentration of D/F.

The Permittee shall notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test shall be provided at least 30 days before the observations are scheduled to take place [63.1511(a)].

- (8) The Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit for D/F. The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met [40 CFR 63.1511(g)].
- (9) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status reports no more than 60 days after March 24, 2003 for the thermal chip dryer. The notification must be signed by the responsible official who must certify its accuracy. The report shall include:
  - (A) All information required in 40 CFR 63.9(h). The Permittee shall provide a complete performance test report for each affected unit, including data, associated measurements, and calculations.
  - (B) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system.
  - (C) Unit labeling as described in 40 CFR 63.1506(b), including process type or each affected unit classification and operating requirements.
  - (D) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., alkaline agent injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (E) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for the capture/collection system required in 40 CFR 63.1506(c).
  - (F) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems required in 40 CFR 63.1510(f).
  - (G) Approved Operation, Maintenance, and Monitoring Plan.
  - (H) Startup, shutdown, and malfunction plan.
- (10) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution

control equipment used to comply with the emission limit. The Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record and report if an action taken during startup, shutdown, or malfunction is not consistent with the procedures in the startup, shutdown, and malfunction plan. The plan shall include [40 CFR 63.1516(a)].

- (A) The procedures to determine and record the cause of a malfunction and the time the malfunction began and ended; and
  - (B) Corrective actions to be taken in the event of a malfunction of a process or control device , including the actions taken to correct the malfunction or minimize emissions.
- (11) The Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring (OM&M) Plan. When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur [63.1516(b)]:
- (A) An excursion of a compliant process or operating parameter value or range.
  - (B) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan.
  - (C) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

The Permittee shall submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.

- (12) The Permittee shall maintain files of all information, including reports and notifications, required by 40 CFR 63.10 and 40 CFR 63.1517. The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (3) years of records may be retained off-site. The Permittee may retain records on microfilm, computer disks, magnetic tape or microfiche.

In addition to the general records required by 40 CFR 60.10(b), the Permittee shall maintain:

- (A) The number of total operating hours for the affected source or emission unit during each six (6) month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.



- (B) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
- (C) Records of any approved alternative monitoring or test procedure.
- (D) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
  - (i) Startup, shutdown, and malfunction plan;
  - (ii) Operation, Maintenance, and Monitoring (OM&M) Plan; and
  - (iii) Site-specific secondary aluminum processing unit emission plan.

#### **40 CFR 63, Subpart RRR Requirements for the Scrap Crusher (CRUSH)**

There are no requirements under 40 CFR 63, Subpart RRR for the scrap crusher at this area source.

#### **40 CFR 63, Subpart RRR Requirements for the Group 2 Furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, and INDUCT-27)**

##### *General Provisions*

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the Group 2 furnaces (INDUCT-21, INDUCT-22, INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, and INDUCT-27) except when otherwise specified in 40 CFR 63, Subpart RRR.

##### *40 CFR 63, Subpart RRR Requirements*

Pursuant to 40 CFR 63.1506(o), the Permittee shall operate these furnaces using only clean charge as the feedstock and using no reactive flux. The compliance date of this rule is March 24, 2003.

Pursuant to 40 CFR 63.1510(r), the Permittee shall record a description of the materials charged to each of these furnaces, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. The Permittee shall also submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v).

**40 CFR 63, Subpart RRR Requirements for the Group 1 Furnaces (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19))**

*General Provisions*

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the Group 1 furnaces (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) except when otherwise specified in 40 CFR 63 Subpart RRR.

*40 CFR 63, Subpart RRR Requirements*

The requirements of the NESHAP 40 CFR 63, Subpart RRR apply to these furnaces. Pursuant to the current version of the rule, these furnaces are required to comply with all the emission limits, operating standards, monitoring, testing, record keeping, and reporting requirements as Group 1 furnaces located at secondary smelting plants. The compliance date of the rule is March 24, 2003. EPA and the American Foundrymen's Society recently entered into a settlement agreement regarding the requirements of this rule as it applies to Group 1 furnaces at foundries and die cast facilities. EPA proposed changes to the NESHAP on June 14, 2002. These changes, as described in the settlement agreement, would only require this source to keep records documenting that the Group 1 furnaces use only clean charge. EPA also proposes to expand the definition of "clean charge" in the proposed upcoming rule changes.

As a result of these expected changes, the detailed requirements of the NESHAP as currently applicable to the existing Group 1 furnaces at this source, will not be spelled out in detail in this permit. Rather, the permit will state that the Group 1 furnaces (RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-12 (DC MELT A - #12), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), Complex 6 (RF-6), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19)) at this source are subject to the requirements of 40 CFR 63, Subpart RRR and will require the source to comply with those requirements as they exist as of the compliance date of the rule (March 24, 2003). The permit will also include a condition requiring the Permittee to apply for a Permit Modification within 30 days after the rule changes are final but no later than March 24, 2003, so that the detailed requirements of 40 CFR 63, Subpart RRR as they will apply to the Group 1 furnaces, can be added to the permit.

(d) **40 CFR 64 (Compliance Assurance Monitoring)**

In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classified as a major source.

For this source, furnace Number 10, 13, 14, and 18A will be uncontrolled and therefore, are not subject to the requirements of CAM. Additionally, none of the facilities at this plant have emissions before controls in excess of major source thresholds. Therefore, none of the facilities at this plant are subject to the requirements of 40 CFR 64.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-4.1-1 (Major Sources of HAP, New Source Toxic Control)**

This source is not subject to 326 IAC 2-4.1-1 (Major Sources of HAP, New Source Toxic Control) because the HAP emissions from the entire source have been limited to less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of any combination of HAPs. Also a NESHAP exists for this source category, therefore 326 IAC 2-4.1-1 would not apply regardless of HAP emissions.

#### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

Pursuant to SSM093-13639-00007 issued on June 16, 2002, and revised in this Part 70 permit, the source shall comply with conditions (a), (b), (c), (d), (e), (f), (g), (h), (i), and (o) in order to render the requirements of 326 IAC 2-2 (PSD) not applicable to the dry hearth furnaces #10, 13, and 14 and reverberatory furnace #18A, and in order for the source to maintain minor PSD status. The source shall comply with conditions (a), (i), (j), (k), (l), (m), (n), and (o) in order to limit the potential to emit of any single HAP to less than 10 tons per year and any combination of HAPs to less than 25 tons per year, such that the source will be a minor source of HAPs.

- (a) The total amount of metal melted by the entire source shall not exceed 175,000 tons per twelve (12) consecutive month period.
- (b) The PM emissions from each furnace at this source shall not exceed 1.78 pounds per ton of metal melted averaged over the melt cycle.
- (c) The PM-10 emissions from each furnace at this source shall not exceed 1.78 pounds per ton of metal melted averaged over the melt cycle.
- (d) The PM emissions from the chip dryer (CHIP-2) shall not exceed 2.28 pounds per ton of aluminum chips.
- (e) The PM10 emissions from the chip dryer (CHIP-2) shall not exceed 2.28 pounds per ton of aluminum chips.
- (f) The VOC emissions from the chip dryer (CHIP-2) shall not exceed 2.0 pounds per ton of aluminum chips.
- (g) The PM emissions from the baghouse controlling the crusher (CRUSH) shall not exceed 0.235 pounds per hour.
- (h) The PM10 emissions from the baghouse controlling the crusher (CRUSH) shall not exceed 0.235 pounds per hour.
- (i) The amount of organic flux used in all of the furnaces combined shall not exceed 34,909 pounds per twelve (12) consecutive month period, where 100 pounds of inorganic flux is equivalent to 1 pound of organic flux.
- (j) The HCl emissions from the use of organic flux shall not exceed 0.55 pounds per pound of organic flux used.

- (k) The HF emissions from the use of organic flux shall not exceed 0.06 pounds per pound of organic flux used. [This limit was revised from the original limit in SSM 093-13639-00007. See the Existing Approvals section of this document for more details.]
- (l) The hexachloroethane emissions from the use of organic flux shall not exceed 0.004 pounds per pound of organic flux used. [This limit was revised from the original limit in SSM 093-13639-00007. See the Existing Approvals section of this document for more details.]
- (m) The HCl emissions from the use of inorganic flux shall not exceed 0.005 pounds per pound of inorganic flux used.
- (n) The HF emissions from the use of inorganic flux shall not exceed 0.03 pounds per pound of inorganic flux used. [This limit was revised from the original limit in SSM 093-13639-00007. See the Existing Approvals section of this document for more details.]
- (o) The Permittee shall not melt any post-consumer scrap materials in any of the furnaces at this source. Only in-house returns and/or in-house returns from other sources where the composition of the purchased returns have at least the same quality as the source's own in-house returns shall be melted in any of the furnaces. The other source's returns shall be specified contractually, and the quality of the returns shall be controlled contractually. Therefore, this source is not considered a secondary metal production facility under 326 IAC 2-2 and is therefore, not one of the 28 listed source categories.

These conditions are sufficient to limit emissions of each criteria pollutant to less than 250 tons per year. Compliance with these conditions will make this source a minor PSD source and render the requirements of PSD not applicable. These conditions are also sufficient to limit emissions of HAPs to less than 10 tons per year for any single HAP and less than 25 tons per year for all HAPs combined.

#### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM, PM<sub>10</sub>, VOC, CO, and NO<sub>x</sub>. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)**

No unit at this source is subject to the requirements of 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations) because no unit has the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide.

**State Rule Applicability - Chip Dryer (CHIP-2)**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the chip dryer (CHIP-2) shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)	PM Emission Limit (ton/yr)
Chip Dryer (CHIP-2)	5.85	13.39	58.65

This limit was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**326 IAC 8-1-6 (New Facilities; General Reduction Requirements)**

The chip dryer (CHIP-2) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because it was constructed prior to the applicability date of this rule, January 1, 1980.

**State Rule Applicability - Scrap Metal Crusher (CRUSH)**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the scrap metal crusher (CRUSH) shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)	PM Emission Limit (ton/yr)
Scrap Metal Crusher (CRUSH)	37.5	41.94	183.71

This limit was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouse for the scrap metal crusher (CRUSH) shall be in operation at all times that the scrap metal crusher (CRUSH) is in operation in order to comply with this limit.

**326 IAC 8-1-6 (New Facilities; General Reduction Requirements)**

The scrap metal crusher (CRUSH) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because it was constructed prior to the applicability date of this rule, January 1, 1980, and does not have the potential to emit greater than twenty-five (25) tons per year of VOC.

**State Rule Applicability - Furnaces**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the furnaces shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)	PM Emission Limit (ton/yr)
Electric Induction Furnace (INDUCT-21)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-22)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-23)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-24)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-25)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-26)	3.3	9.12	39.96
Electric Induction Furnace (INDUCT-27)	3.3	9.12	39.96
Reverberatory Furnace RF-2 (DC MELT B - #2)	6.25	14	61.31
Reverberatory Furnace RF-3 (DC MELT A - #3)	3.4	9.31	40.77
Reverberatory Furnace RF-11 (DC MELT A - #11)	5.1	12.21	53.50
Reverberatory Furnace RF-12 (DC MELT A - #12)	10.0	19.18	84.00
Reverberatory Furnace RF-16 (DC MELT A - #16)	4.87	11.84	51.87
Dry Hearth Furnace Number 10	12.5	22.27	97.54
Dry Hearth Furnace Number 13	2.08	6.70	29.33
Dry Hearth Furnace Number 14	2.08	6.70	29.33

Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)	PM Emission Limit (ton/yr)
Reverberatory Furnace Number 18A	2.0	6.52	28.57
Reverberatory Furnace RF-13 (PIST MELT - #13)	1.08	4.32	18.91
Reverberatory Furnace RF-5 (PIST MELT - #5)	4.17	10.67	46.75
Reverberatory Furnace Complex 6 (RF-6)	5.0	12.05	52.79
Reverberatory Furnace RF-7 (PIST MELT - #7)	6.6	14.52	65.38
Reverberatory Furnace RF-19 (PIST MELT - #19)	4.67	11.51	50.43

These limits were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**326 IAC 8-1-6 (New Facilities; General Reduction Requirements)**

- (a) Furnace Number 10, 13, 14, and 18A are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though they were constructed after the applicability date of the rule because none of the furnaces individually have the potential to emit greater than twenty-five (25) tons per year of VOC.
- (b) Furnaces INDUCT-21, INDUCT-22, RF-2 (DC MELT B - #2), RF-3 (DC MELT A - #3), RF-11 (DC MELT A - #11), RF-16 (DC MELT A - #16), RF-5 (PIST MELT - #5), RF-7 (PIST MELT - #7), and RF-19 (PIST MELT - #19) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they were constructed prior to the applicability date of the rule and do not, individually, have the potential to emit greater than twenty-five (25) tons per year of VOC.
- (c) Furnaces INDUCT-23, INDUCT-24, INDUCT-25, INDUCT-26, INDUCT-27, RF-12 (DC MELT A - #12), RF-13 (PIST MELT - #13), and Complex 6 (RF-6) are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though they were constructed after the applicability date of the rule because they do not, individually, have the potential to emit greater than twenty-five (25) tons per year of VOC.

**State Rule Applicability - Tool Room Boiler**

**326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)**

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the tool room boiler shall not exceed 0.8 pound per million Btu of heat input. This limitation is based on the following equation:

$$P_t = \frac{C \times a \times h}{1000}$$

$$76.5 \times Q^{0.75} \times N^{0.25}$$

- where C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.
- Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).
- Q = Total source maximum operating capacity rating in million Btu per hour of heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. (Q = 10.05 MMBtu/hr)
- N = Number of stacks in fuel burning operation.
- a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.
- h = Stack height in feet. If a number of stacks of different heights exist, the average stack height to represent "N" stacks shall be calculated by weighing each stack height with its particulate matter emissions rate.

Using the equation, Pt = 3.88 lb/MMBtu; therefore, pursuant to 326 IAC 6-2-3(e), the limit defaults to 0.8 lb/MMBtu of heat input.

Based on calculations, the boiler is in compliance with this requirement.

### **State Rule Applicability - Insignificant Degreasers**

#### **326 IAC 8-3-2 (Cold Cleaner Operations)**

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### **326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)**

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:



- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

### State Rule Applicability - Insignificant Sources of Particulate Matter

#### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the units shall not exceed the allowable particulate emission rate based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

### Testing Requirements

Pursuant to SSM093-13639-00007, in addition to the stack tests required by the NESHAP 40 CFR 63, Subpart RRR, the Permittee shall perform stack tests as shown in the table below using methods as approved by the Commissioner in order to demonstrate compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). PM-10 includes filterable and condensable PM-10.

Facilities to be tested	Pollutants for which to test	Testing Schedule
Dry Hearth Furnace Number 10	PM and PM10	Within 60 days after achieving maximum capacity, but no later than 180 days after startup
Reverberatory Furnace RF-2 (DC MELT B - #2)	PM and PM10	Within 12 months after issuance of SSM093-13639-0007
Reverberatory Furnace Complex 6 (RF-6)	PM and PM10	Within 12 months after issuance of SSM093-13639-0007
One of the electric induction furnaces (INDUCT-21, 22, 23, 24, 25, 26, or 27)	PM and PM10 ( <u>uncontrolled</u> emissions)	Within 12 months after issuance of SSM093-13639-0007
Aluminum Chip Dryer (CHIP-2)	PM, PM10, and VOC	Within 12 months after issuance of SSM093-13639-0007
Scrap Metal Crusher (CRUSH)	PM and PM10 (controlled emissions)	Within 12 months after issuance of SSM093-13639-0007

### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D

of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The chip dryer (CHIP-2) has applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the chip dryer (CHIP-2) stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the thermal chip dryer at least once per shift when the thermal chip dryer is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. The output of the continuous recording device shall be monitored once per shift. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
  - (c) In the event that bag failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions), or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process will be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe.

- (d) An inspection shall be performed each calendar quarter of the clean end of the baghouse controlling the thermal chip dryer. All defective bags shall be replaced.
- 2. The scrap metal crusher (CRUSH) has applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the scrap metal crusher (CRUSH) stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the scrap metal crusher (CRUSH), at least once per shift when the scrap metal crusher (CRUSH) is in operation. In lieu of manually recording the pressure drop, the Permittee may install and operate a continuous recording device. The output of the continuous recording device shall be monitored once per shift. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 9.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (c) An inspection shall be performed each calendar quarter of the clean end of the baghouse controlling the scrap metal crusher (CRUSH) processes. All defective bags shall be replaced.
  - (d) In the event that bag failure has been observed, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section C- Emergency Provisions), or if safety concerns prevent immediate shutdown. If safety concerns prevent immediate shutdown, then feed to the associated process will be shut off immediately and the process shall be shutdown as soon as shutdown would be considered safe. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for

completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the baghouse for the scrap metal crusher (CRUSH) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (Prevention of Significant Deterioration), and 326 IAC 2-7 (Part 70).

## **Conclusion**

The operation of this aluminum die casting facility shall be subject to the conditions of the attached proposed Part 70 Permit No. T093-5652-00007.

**Company Name:** General Motors Corporation  
**Address, City IN Zip:** 105 GM Drive, Bedford, Indiana 47421  
**Permit #:** 093-5652  
**Plt ID:** 093-00007  
**Reviewer:** Mike Pring

Page 1 of 16

The following limits are pursuant to the requirements of 326 IAC 6-3-2 (Process Operations).  
 These limits are based on the equations given in the rule.

Facility	PWR (tons/hr)	Limit (lbs/hr)	Limit (tons/yr)	
aluminum chip dryer	5.85	13.39	58.65	
scrap metal crusher	37.5	41.94	183.71	
induction furnaces	3.3	9.12	39.96	(limit applies to each individual furnace)
reverb furnace 2	6.25	14.00	61.31	
reverb furnace 3	3.4	9.31	40.77	
reverb furnace 11	5.1	12.21	53.50	
reverb furnace 16	4.87	11.84	51.87	
reverb furnace 12	10	19.18	84.00	
reverb furnace 13	1.08	4.32	18.91	
reverb furnace 5	4.17	10.67	46.75	
reverb furnace 6C	5	12.05	52.79	
reverb furnace 7	6.6	14.52	63.58	
reverb furnace 17	4.3	10.89	47.72	
reverb furnace 18A	2	6.52	28.57	
reverb furnace 19	4.67	11.51	50.43	
dry hearth furnace 13	2.08	6.70	29.33	
dry hearth furnace 14	2.08	6.70	29.33	
dry hearth furnace 10	12.5	22.27	97.54	

Facility	PWR (tons/hr)	EF (lb PM/ton)	Emissions before control (lb/hr)	Control Device	Control Eff (%)	Emissions after control (lb/hr)	Limit (lbs/hr)
aluminum chip dryer	5.85	2.28	13.34	baghouse	85.0%	2.00	13.39
scrap metal crusher	37.50		46.97	baghouse	99.5%	0.23	41.94
induction furnaces	3.30	1.78	5.87	venturi scrubber	85.0%	0.88	9.12
reverb furnace 2	6.25	1.78	11.13	none		11.13	14.00
reverb furnace 3	3.40	1.78	6.05	none		6.05	9.31
reverb furnace 11	5.10	1.78	9.08	none		9.08	12.21
reverb furnace 16	4.87	1.78	8.67	none		8.67	11.84
reverb furnace 12	10.00	1.78	17.80	none		17.80	19.18
reverb furnace 13	1.08	1.78	1.92	none		1.92	4.32
reverb furnace 5	4.17	1.78	7.42	none		7.42	10.67
reverb furnace 6C	5.00	1.78	8.90	none		8.90	12.05
reverb furnace 7	6.60	1.78	11.75	none		11.75	14.52
reverb furnace 17	4.30	1.78	7.65	none		7.65	10.89
reverb furnace 18A	2.00	1.78	3.56	none		3.56	6.52
reverb furnace 19	4.67	1.78	8.31	none		8.31	11.51
dry hearth furnace 13	2.08	1.78	3.70	none		3.70	6.70
dry hearth furnace 14	2.08	1.78	3.70	none		3.70	6.70
dry hearth furnace 10	12.50	1.78	22.25	none		22.25	22.27

The 1.78 lb/ton is an alternate emission factor. A similar source (Ft Wayne Foundry) tested at less than 1 lb/ton.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: General Motors Corporation****Address, City IN Zip: 105 GM Drive, Bedford, Indiana 47421****Permit #: 093-5652****Plt ID: 093-00007****Reviewer: Mike Pring****Tool Room Boiler**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

10.1

88.0

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.3	0.3	0.0	4.4	0.2	3.7

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: General Motors Corporation****Address City IN Zip: 105 GM Drive, Bedford, Indiana 47421****CP: 093-5652****Plt ID: 093-00007****Reviewer: Mike Pring****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.244E-05	5.282E-05	3.301E-03	7.923E-02	1.497E-04

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.201E-05	4.842E-05	6.163E-05	1.673E-05	9.244E-05

Total HAPs: 0.08307 tons/yr

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Company Name:** General Motors Corporation  
**Address, City IN Zip:** 105 GM Drive, Bedford, Indiana 47421  
**Permit #:** 093-5652  
**Plt ID:** 093-00007  
**Reviewer:** Mike Pring

Page 4 of 16

**Tool room boiler**

boiler installed in 1966

Limit pursuant to 326 IAC 6-2-3

$$Pt = (CXaXh) / (76.5 X(Q^{0.75})X(N^{0.25}))$$

C = 50 micrograms per cubic meter  
Q = 10.05 total heat input capacity (MMBtu/hr)  
N = 1 number of stacks  
a = 0.67 plume rise factor  
h = 50 ft --- stack height

Pt = 3.88 lb/MMBtu heat input  
therefore, pursuant to 326 IAC 6-2-3 (e), the limit defaults to 0.8 lb/MMBtu of heat input

$$0.8 \text{ lb/MMBtu} \times 10.05 \text{ MMBtu/hr} = 8.04 \text{ lbs/hr} = 35.22 \text{ tons/yr}$$

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Company Name: General Motors Corporation - GMPTG - Bedford****Plant Location: 105 GM Drive, Bedford, IN 47421****Permit #: 093-5652****Plt. ID #: 093-00007****Reviewer: Mike Pring****#10 dry hearth furnace****#18 reverb furnace****2 small dry hearth furnaces**

Heat Input Capacity

MMBtu/hr

Potential Throughput

MMCF/yr

77.0

674.5

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	2.6	2.6	0.2	33.7	1.9	28.33

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****HAPs Emissions****Company Name: General Motors Corporation - GMPTG - Bedford****Plant Location: 105 GM Drive, Bedford, IN 47421****Permit #: 093-5652****Plt. ID #: 093-00007****Reviewer: Mike Pring****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	7.082E-04	4.047E-04	2.529E-02	6.071E-01	1.147E-03

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.686E-04	3.710E-04	4.722E-04	1.282E-04	7.082E-04

Total HAPs: 0.63647 tons/yr

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Company Name: General Motors Corporation - GMPTG - Bedford****Plant Location: 105 GM Drive, Bedford, IN 47421****Permit #: 093-5652****Plt. ID #: 093-00007****Reviewer: Mike Pring****all furnaces, chip dryer  
and tool room boiler**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

385.5

3377.2

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	12.8	12.8	1.0	168.9	9.3	141.84

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****HAPs Emissions****Company Name: General Motors Corporation - GMPTG - Bedford****Plant Location: 105 GM Drive, Bedford, IN 47421****Permit #: 093-5652****Plt. ID #: 093-00007****Reviewer: Mike Pring****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.546E-03	2.026E-03	1.266E-01	3.040E+00	5.741E-03

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.443E-04	1.857E-03	2.364E-03	6.417E-04	3.546E-03

Total HAPs: 3.18673 tons/yr

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Company Name: General Motors Corporation - GMPTG - Bedford**  
**Plant Location: 105 GM Drive, Bedford, IN 47421**  
**Permit #: 093-5652**  
**Plt. ID #: 093-00007**  
**Reviewer: Mike Pring**

Page 9 of 16

*Limited Emissions*

<b>Furnaces</b>	<b>Max Capacity (tons metal/hr)</b>	<b>Max Capacity (MMBtu/hr)</b>	<b>Max Capacity of inorganic flux (lb/ton metal)</b>	<b>Max Capacity of organic flux (lb/ton metal)</b>
#10 dry hearth	12.5	50	0	0
small dry hearth #13	2.08	10	0	0
small dry hearth #14	2.08	10	0	0
#18A reverb	2	7	0	0
Ind #21	3.3		0	0
Ind #22	3.3		0	0
Ind #23	3.3		0	0
Ind #24	3.3		0	0
Ind #26	3.3		0	0
Ind #27	3.3		0	0
DC#3	3.4	20.4	7	0
DC#11	5.1	20.4	7	0
DC#12	10	40	7	0
DC#16	4.87	29.2	7	0
DC#2	6.25	25	0.1	0
Pist #5	4.17	25	9	2
Pist #6-C	5	33	0.1	0
Pist #7	6.6	39.6	9	2
Pist #13	1.08	5.2	0	0
Pist #17	4.3	25.8	9	2
Pist #19	4.67	28	9	2
<b>Total Furnace Capacity</b>	<b>93.9</b>	<b>368.6</b>	<b>64.2</b>	<b>8</b>

Limited Emissions

Page 10 of 16

Emission Unit	Melt Limit (tons metal/yr)	Heat Capacity (MMBtu/hr)	Pollutant	EF (lb/ton metal)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
all furnaces	175000	368.6	PM	1.78		155.75	155.75	none	
			PM10	1.78		155.75	155.75	none	
			SO2		0.6	0.97	0.97	none	
			NOx		100	161.45	161.45	none	
			VOC	0.2	5.5	26.38	26.38	none	
			CO		84	135.62	135.62	none	

Emission Unit	Organic Flux Usage C2(Cl3)2 (lbs/yr)	Inorganic Flux Usage SF6 (lbs/yr)	Pollutant	EF (lb/lb org flux)	EF (lb/lb inorg flux)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
Furnace flux usage	34,909		PM	included in above calculations				none	
Cl usage (lb/day)	31367		PM10	included in above calculations				none	
			HCl	0.55	0.005	9.60	9.60	none	
			HF	0.06	0.03	1.18	0.59	none	
			hexachloroethane	0.004		0.08	0.08	none	
Total HAPs						10.85	10.27		

Emission Unit	Capacity (tons metal/yr)	Heat Capacity (MMBtu/hr)	Pollutant	EF (lb/ton metal)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
chip dryer	51246	6.83	PM	2.28		58.42	58.42	baghouse	
			PM10	2.28		58.42	58.42	baghouse	
			SO2		0.6	0.02	0.02		
			NOx		100	2.99	2.99		
			VOC	2	5.5	51.41	51.41	afterburner	
			CO		84	2.51	2.51		

Limited Emissions

Page 11 of 16

Emission Unit	Capacity (tons metal/hr)	Flow Rate (acfm)	Pollutant	Baghouse Outlet Grain Loading (gr/acfm)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
scrap metal crusher	175000	12000	PM	0.01		103	1.03	baghouse	99%
			PM10	0.01		103	1.03		
			SO2			0.00			
			NOx			0.00			
			VOC			0.00			
			CO			0.00			

Maintenance painting:

VOC emissions: 2.74 tons/yr

Tool Room Boiler: (see natural gas combustion spreadsheet for detailed calculations)

PM	PM10	SO2	NOx	VOC	CO	HAPs
0.3	0.3	0.0	4.4	0.2	3.7	0.08307

Total Limited Emissions

	tons/yr	
PM	215.50	
PM10	215.50	
SO2	0.99	
NOx	168.84	
VOC	80.73	
CO	141.83	
HCl	9.60	
HF	0.59	
hexachloroethane	0.08	
HAPs from n.g.	3.19	(see natural gas combustion spreadsheet for detailed calculations)
Total HAPs	13.46	



**Company Name: General Motors Corporation - GMPTG - Bedford**  
**Plant Location: 105 GM Drive, Bedford, IN 47421**  
**Permit #: 093-5652**  
**Plt. ID #: 093-00007**  
**Reviewer: Mike Pring**

Page 12 of 16

*Potential Emissions*

<b>Furnaces</b>	<b>Max Capacity (tons metal/hr)</b>	<b>Max Capacity (MMBtu/hr)</b>
#10 dry hearth	12.5	50
small dry hearth #13	2.08	10
small dry hearth #14	2.08	10
#18A reverb	2	7
Ind #21	3.3	
Ind #22	3.3	
Ind #23	3.3	
Ind #24	3.3	
Ind #26	3.3	
Ind #27	3.3	
DC#3	3.4	20.4
DC#11	5.1	20.4
DC#12	10	40
DC#16	4.87	29.2
DC#2	6.25	25
Pist #5	4.17	25
Pist #6-C	5	33
Pist #7	6.6	39.6
Pist #13	1.08	5.2
Pist #17	4.3	25.8
Pist #19	4.67	28
<b>Total Furnace Capacity</b>	<b>93.9</b>	<b>368.6</b>

Potential Emissions

Page 13 of 16

Emission Unit	Melt Capacity (tons metal/hr)	Heat Capacity (MMBtu/hr)	Pollutant	EF (lb/ton metal)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
all furnaces	93.9	368.6	PM	1.78		732.08			
			PM10	1.78		732.08			
			SO2		0.6	0.97			
			NOx		100	161.45			
			VOC	0.2	5.5	91.14			
			CO		84	135.62			

Emission Unit	Organic Flux Usage C2(Cl3)2 (lbs/yr)	Inorganic Flux Usage SF6 (lbs/yr)	Pollutant	EF (lb/ton Cl)	EF (lb/ton Cl)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
Furnace flux usage	70,000	1,312,500							
Cl usage (lb/day)	62897								
				EF (lb/lb org flux)	EF (lb/lb inorg flux)				
			HCl	0.55	0.005	22.53	22.53		
			HF	0.06	0.03	21.79	21.79	none	
			hexachloroethane	0.004		0.14	0.14	none	
			Total HAPs			44.46	44.46		

Emission Unit	Capacity (tons metal/hr)	Heat Capacity (MMBtu/hr)	Pollutant	EF (lb/ton metal)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
chip dryer	5.85	6.83	PM	2.28		58.42			
			PM10	2.28		58.42			
			SO2		0.6	0.02			
			NOx		100	2.99			
			VOC	2	5.5	51.41			
			CO		84	2.51			

Potential Emissions

Page 14 of 16

Emission Unit	Capacity (tons metal/hr)	Flow Rate (acfm)	Pollutant	Baghouse Outlet Grain Loading (gr/acfm)	EF (lb/MMCF)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
scrap metal crusher	175000	12000	PM	0.01		102.8571	1.03		99%
			PM10	0.01		102.8571	1.03		
			SO2				0.00		
			NOx				0.00		
			VOC				0.00		
			CO				0.00		

Maintenance painting:

VOC emissions: 2.74 tons/yr

Tool Room Boiler: (see natural gas combustion spreadsheet for detailed calculations)

PM	PM10	SO2	NOx	VOC	CO	HAPs
0.3	0.3	0.0	4.4	0.2	3.7	0.08307

Total Potential Emissions

	tons/yr
PM	893.66
PM10	893.66
SO2	0.99
NOx	168.84
VOC	142.75
CO	141.83
HCl	22.53
HF	21.79
hexachloroethane	0.14
HAPs from n.g.	3.19
Total HAPs	47.65

Permit #: 093-5652  
Plt. ID #: 093-00007  
Reviewer: Mike Pring

**CAPACITY**

Activity	SCC Code	Rated Capacity	Units	Maximum Capacity	Units
No. 10 Dry Hearth: Melting	30400301	12.5	TM/Hr	109,500	TM/Yr
No. 10 Dry Hearth: Natural Gas	10300602	50.0	MMBtu/hr	0.050	MMcf/hr
Small Dry Hearth: Melting (each)	30400301	2.08	TM/Hr	18,221	TM/Yr
Small Dry Hearth: Natural Gas (each)	10300602	10.0	MMBtu/hr	0.010	MMcf/hr
No. 18 Reverb: Melting	30400301	2.0	TM/Hr	17,520	TM/Yr
No. 18 Reverb: Natural Gas	10300602	7.0	MMBtu/hr	0.007	MMcf/hr

**POTENTIALS TO EMIT**

**No. 10 Dry Hearth Furnace: Melting**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	1.78	lbs/TMC	22.25	97.46
PM10	1.78	lbs/TMC	22.25	97.46
SO2	0.00	lbs/TMC	0.00	0.00
NOx	0.00	lbs/TMC	0.00	0.00
VOC	0.00	lbs/TMC	0.00	0.00
CO	0.00	lbs/TMC	0.00	0.00

EF Source: AP-42: Alternate EF established for PM and PM10.

**ALLOWABLE EMISSIONS vs. POTENTIAL TO EMIT PM**

Activity	Rated Capacity	Units	Emission Factor: PM	Units
No. 10 Dry Hearth Furnace	12.5	TM/Hr	1.78	lbs/TMC
Small Dry Hearth Furnace (each)	2.08	TM/Hr	1.78	lbs/TMC
No. 18 Reverb Furnace	2.0	TM/Hr	1.78	lbs/TMC

Allowable Emissions by 326 IAC 6-3: lbs PM/hr = 4.10 x (tons/hr process rate)<sup>0.67</sup>

Note: Particulate emissions due to combustion are included within the 1.78 lb/ton melt emission factor.

**No. 10 Dry Hearth Furnace: Natural Gas Combustion**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	See Note	lbs/MMcf	See Note	See Note
PM10	See Note	lbs/MMcf	See Note	See Note
SO2	0.6	lbs/MMcf	0.03	0.13
NOx	100.0	lbs/MMcf	5.00	21.90
VOC	5.5	lbs/MMcf	0.28	1.20
CO	84.0	lbs/MMcf	4.20	18.40

EF source: AP-42 natural gas combustion

**Small Dry Hearth Furnace: Melting (each)**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	1.78	lbs/TMC	3.70	16.22
PM10	1.78	lbs/TMC	3.70	16.22
SO2	0.00	lbs/TMC	0.00	0.00
NOx	0.00	lbs/TMC	0.00	0.00
VOC	0.00	lbs/TMC	0.00	0.00
CO	0.00	lbs/TMC	0.00	0.00

EF Source: AP-42: Alternate EF established for PM and PM10.

**Small Dry Hearth Furnace: Natural Gas Combustion (each)**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	See Note	lbs/MMcf	See Note	See Note
PM10	See Note	lbs/MMcf	See Note	See Note
SO2	0.6	lbs/MMcf	0.01	0.03
NOx	100.0	lbs/MMcf	1.00	4.38
VOC	5.5	lbs/MMcf	0.06	0.24
CO	84.0	lbs/MMcf	0.84	3.68

EF source: AP-42 natural gas combustion

Note: Particulate emissions due to combustion are included within the 1.78 lb/ton melt emission factor.

**No. 18A Reverb Furnace: Melting**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	1.78	lbs/TMC	3.56	15.59
PM10	1.78	lbs/TMC	3.56	15.59
SO2	0.00	lbs/TMC	0.00	0.00
NOx	0.00	lbs/TMC	0.00	0.00
VOC	0.00	lbs/TMC	0.00	0.00
CO	0.00	lbs/TMC	0.00	0.00

EF Source: AP-42: Alternate EF established for PM and PM10.

**No. 18A Reverb Furnace: Natural Gas Combustion**

Criteria Pollutant	Emission Factor	Units	( lbs/hr )	( tons/yr )
PM	See Note	lbs/MMcf	See Note	See Note
PM10	See Note	lbs/MMcf	See Note	See Note
SO2	0.6	lbs/MMcf	0.00	0.02
NOx	100.0	lbs/MMcf	0.70	21.90
VOC	5.5	lbs/MMcf	0.04	1.20
CO	84.0	lbs/MMcf	0.59	18.40

EF source: AP-42 natural gas combustion

**Totals**

Criteria Pollutant	( lbs/hr )	( tons/yr )
PM	33.21	145.48
PM10	33.21	145.48
SO2	0.046	0.20
NOx	7.7	52.56
VOC	0.42	2.89
CO	6.47	44.15

Furnace	Capacity (T/hr)	PW Limit PM (lb/hr)	PW Limit PM (lb/T)	Estimated Max Capacity of Inorganic Flux (lb/T)	Estimated Max Capacity of Organic Flux (lb/T)
Ind 21	3.3	9.12	2.76	0	0
Ind 22	3.3	9.12	2.76	0	0
Ind 23	3.3	9.12	2.76	0	0
Ind 24	3.3	9.12	2.76	0	0
Ind 26	3.3	9.12	2.76	0	0
Ind 27	3.3	9.12	2.76	0	0
DC 2 (H)*	6.25	14.00	2.24	0.1	0
DC 3	3.4	9.31	2.74	7	0
DC 11	5.1	12.21	2.39	7	0
DC 12	10	19.18	1.92	7	0
DC 16	4.87	11.84	2.43	7	0
Pist 13 (H)*	1.08	4.32	4.00	0	0
Pist 5	4.17	10.67	2.56	9	2
Pist 7	6.6	14.52	2.20	9	2
Pist 17	4.3	10.89	2.53	9	2
Pist 18A	2	6.52	3.26	0	0
Pist 19	4.67	11.51	2.47	9	2
Pist 6C**	6.88	14.93	2.17	0.1	0
DH 10	12.5	22.27	1.78	0	0
DH 13	2.08	6.70	3.22	0	0
DH 14	2.08	6.70	3.22	0	0

According to the above calculations, the most restrictive Process Weight Limit is 1.78 lb/T.

Process weight limits have been estimated by using the following formula from reg 6-3

$$PW = 4.1 (PWR)^{0.67}$$

where PW = the process weight limit in lb/hr  
PWR = the capacity of the furnace in T/hr

Estimated Max Capacity of Flux usage is based on pounds of flux used per ton metal processed.

#### **Estimated Max Quantity of Inorganic Flux Used:**

These calculations are based on the 175,000 ton melt limit set at the facility, and based on the fact that approximately 80% of our metal goes through DC melting and 20% goes through Piston Melting.

$$\begin{aligned} \text{Est. Max Quantity of Inorganic Flux} &= (7 \text{ lb/T} + 0.1 \text{ lb/T}) * (175,000 \text{ T}) * (0.8) + (9 \text{ lb/T} + 0.1 \text{ lb/T}) * (175,000 \text{ T}) * (0.2) \\ &= 1,312,500 \text{ lbs of inorganic flux} \end{aligned}$$

#### **Estimated Max Quantity of Organic Flux Used:**

$$\begin{aligned} \text{Est. Max Quantity of Organic Flux} &= (2 \text{ lb/T}) * (175,000 \text{ T}) * (0.2) \\ &= 70,000 \text{ lbs of organic flux} \end{aligned}$$

\* These furnaces are strictly holding furnaces, therefore they theoretically don't have a "melt capacity".

\*\* This furnace is a dry hearth complex, part of the burner size is dedicated to holding the molten aluminum and not melting.

Note: To be conservative with both the holding furnaces and the dry hearth complex all the burner size was used in calculating a potential melt capacity.